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The Cost of Healthy Eating in Edmonton

By

Tara May Rankin



**A thesis submitted to the Faculty of Graduate Studies and Research in partial
fulfillment of the requirements for the degree of Master of Science**

Centre for Health Promotion Studies

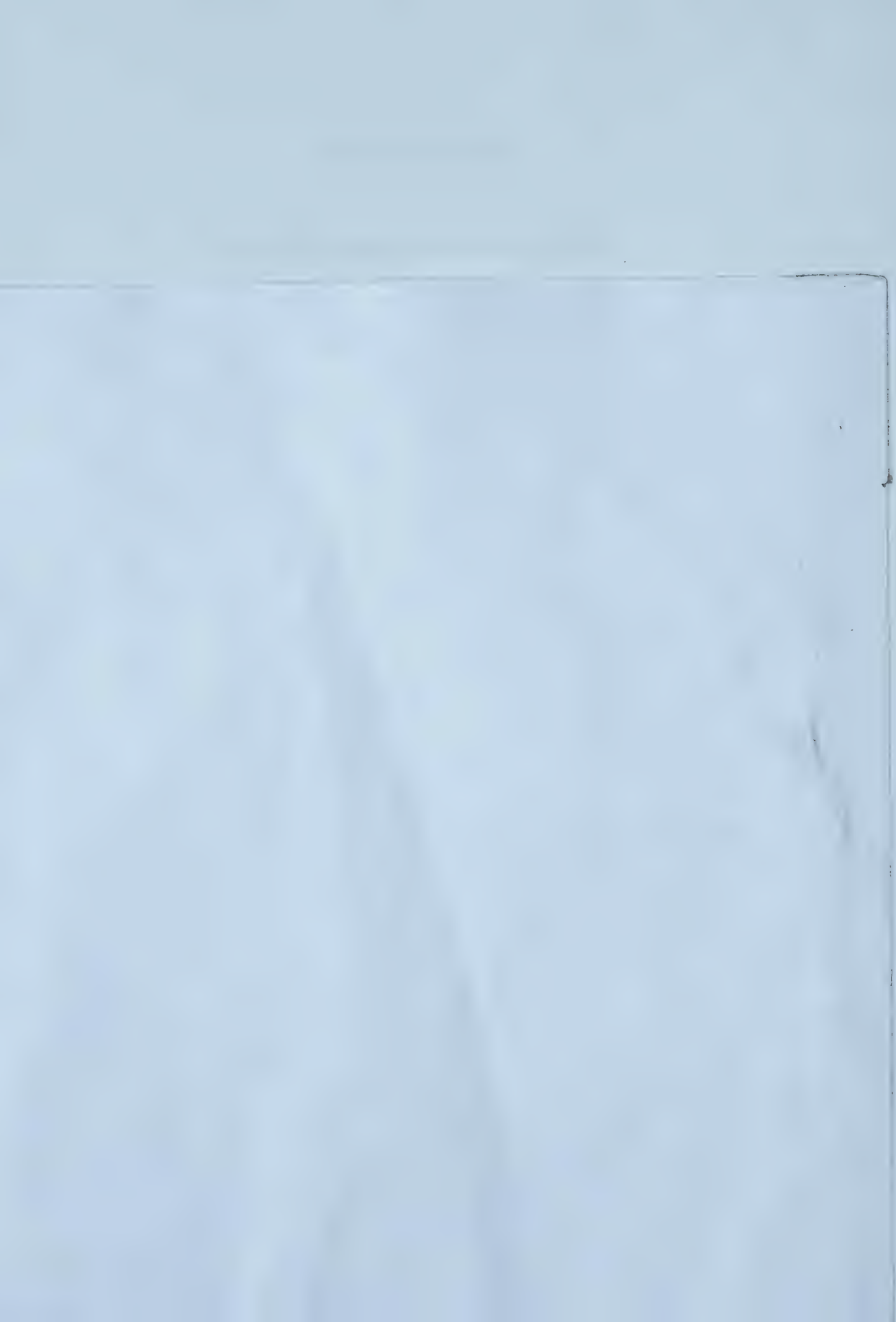
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The undersigned certify that they have read, and recommended to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled The Cost of Healthy Eating in Edmonton here submitted by Tara M. Rankin in partial fulfillment of the requirements for the degree of Master of Science .



ABSTRACT

The purpose of the research was to develop and price a food basket to monitor the cost of meeting nutritional needs in Edmonton, Canada. A food price survey was conducted during April, 1999. The survey entailed, 1) developing a validated, nutritious food basket 2) pricing the basket, 3) comparing the costs among stores and locations, and 4) comparing the cost to welfare (SFI) food allowances and minimum wage. The cost of healthy eating in Edmonton varied, with trends in relation to store size and neighbourhood income level. The mean monthly cost of the Edmonton Nutritious Food Basket (ENFB) for a family of 3 and 4 is \$309.86 and \$461.02. Comparing values to SFI allowances, considering other living expenses, SFI allowances are currently inadequate to cover the cost of healthy eating. These findings have implications for the food security of low-income families.

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1.0 Introduction

Because food is the body's source of nutrients and energy, sufficient intake of nutritionally adequate foods is instrumental in achieving and maintaining health and wellbeing. Access to adequate nutritious food is compromised in low-income households (Dowler, 1996; Wilson & Steinman, 2000).

Hunger has been defined by Davis and Tarasuk (1994, p. 51) as "the inability to obtain sufficient, nutritious, personally acceptable food through normal channels or the uncertainty that one will be able to do so." Hunger, so defined, focuses on access to food. The term hunger is often used interchangeably with food insecurity (Davis & Tarasuk, 1994). Food security has been defined as "all people at all times [having] physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life (U.S. government, 1997)." In Canada, economic access can reasonably be interpreted as the monetary means to obtain food at grocery stores or supermarkets, the typical socially acceptable way of obtaining food.

In the absence of reliable national statistics on the incidence of hunger and food insecurity, the proliferation of charitable food banks and feeding programs have been used as indicators of the magnitude of the hunger problem. The first formal Food Bank in Canada emerged in Edmonton in 1981 as an emergency short-term charitable measure attempting to alleviate hunger. Twenty years later, Food Banks have become institutionalized, so much so that formal support systems, such as social assistance agencies, refer people to Food Banks for one of their most basic human needs (Edmonton Social Planning Council [ESPC], 1998). According to Hunger Count 2000 (Wilson & Steinman, 2001), at least 615 Food Banks are operating nation wide in Canada, in

addition to 1,598 other agencies helping hungry including churches, soup kitchens and many other charitable organizations. Over the last five years an additional 77 new food banks have opened in an attempt to meet the ever-growing demand. The demand for Food Bank services in Edmonton increased 122% from 1993 to 1996 (ESPC, 1996); the increase in demand coincided with a decrease in Alberta provincial welfare benefits. In addition to Food Banks, many non-government agencies provide food to low income families and individuals, making the precise number of people served difficult to determine. Dramatic increases in feeding and food distribution programs are evidence of the ever-increasing incidence of hunger in society (Webber, 1992). Food available through charitable food assistance programs, however, is reliant on donations and cannot be depended on as a certain means of meeting nutritional needs. Charitable food supplies often become depleted and may not provide sufficient variety to meet nutritional requirements. Thus, for a growing number of Canadians, hunger is a reality and adequate food a luxury that is frequently beyond their means. Chronic hunger affects a large portion of the Canadian population. In Edmonton, the Food Bank feeds approximately 15,500 people through hampers alone each month in addition to referrals to over 125 community agencies, churches and food depots (personal communication, Marjorie Benz, Edmonton Food Bank Director, November 16, 2000).

The effects of hunger on health are both short-term and long-term. Child hunger can result in health difficulties, problems in school, and difficulty concentrating (Wadsworth, 1997). The health of adults can also be impacted by inadequate food intake. Poverty often results in compromised nutritional status due to inadequate caloric intake and low intake of specific food groups that provide essential nutrients (White, 1994). The

lack of adequate quantities of food to meet the minimal requirements of Canada's Food Guide to Healthy Eating (Health and Welfare Canada, 1992) is a regular occurrence in low-income families. For example, 84% of family heads interviewed for an Edmonton Food Bank study personally did not eat the recommended servings of fruits, vegetables, grain products and milk products (ESPC, 1998).

The question remains "How do people cope with insufficient income?" Food Bank recipients report that food is the first thing they cut due to the lack of immediate consequences (ESPC, 1996). The impact of inadequate intake of nutritious food is not evident in the short-term to individuals. Going hungry for short periods of time does not have life-threatening results, whereas being without shelter in frigid winter weather does.

The social and economic environment "influence the ability of individuals to acquire a healthy diet" (Joint Steering Committee, 1996, p. 8). Insufficient income is a barrier to obtaining enough food for good nutrition, frequently resulting in food insecurity. Economic access to nutritious food is influenced by both sufficient income and the cost of food. A quantitative measure, such as a priced food basket based on consumer input and nutritional requirements, can act as a guide to monitor the cost of meeting nutritional needs (Joint Steering Committee, 1996). Developing and pricing such a food basket in the city of Edmonton is the focus of this research.

2.0 Literature Review

2.1 Perspectives on Determinants of Health

Health is influenced by both individual factors (such as genetic make up and individual lifestyle choices) and collective factors (such as the social and economic environments within which we live) (Joint Steering Committee, 1996). Although health and nutrition programs and services have traditionally been dominated by a focus on individual determinants of health, recently, a call for a focus on broader environmental determinants has been made (Travers, 1997). This socioenvironmental approach to health promotion recognizes the influence of context on health.

Individual factors that influence food choices are personal health practices and coping skills (Joint Steering Committee, 1996). The individual lifestyle approach to health promotion aims to change and improve personal health practices (such as eating behaviours) through dissemination of nutrition information. This approach views one's nutritional intake as something that can be modified but fails to consider whether the environment is supportive of making the desired change. For example, low-income individuals may live in an environment that may not be supportive of their particular desired lifestyle; individuals may want to eat more vegetables to improve their health but have insufficient income to purchase them or insufficient space to grow them. Many professionals fail to realize that nutrition recommendations may not be followed due to lack of income rather than a lack of knowledge (Travers, 1994). Often, a perceived lack of knowledge results in dissemination of nutrition information that is already known. For individuals faced with the reality of limited incomes, cost is a determining and limiting factor. High carbohydrate foods that are inexpensive tend to be consumed more

frequently by those with low incomes, while foods high in protein, iron and calcium tend to be scarce in their diets due to their cost (International Life Sciences Institute, 1990).

Thus, the primary reasons that nutrition education is not effective for the poor are its lack of practical application and the expense entailed (Joint Steering Committee, 1996). As an alternative to disseminating nutrition information, enhancing coping skills, such as teaching the poor how to budget, has been wrongfully assumed to be an effective intervention strategy (Travers, 1994). This individual lifestyle approach fails to acknowledge the effect that social setting has on eating habits and has a tendency to blame individuals for their lack of lifestyle changes that would improve their health.

The socioenvironmental approach to health promotion emerged as part of an attempt to improve the health of the less privileged members of society, such as lower socioeconomic groups. This shift in thinking was also the result of the recognition that "socioenvironmental risk conditions were themselves important health determinants" (Labonte, 1993, pg. 8). Physical environment, health services, and the social and economic environment compose the collective factors involved in an individual's nutritional status (Joint Steering Committee, 1996). The physical environment refers to the type of food that is available, for example, in retail outlets, workplaces and schools, influencing food choices through accessibility. It is important to remember that we do not all have the opportunity to choose our food, as is the case for children, the institutionalized, and those receiving food charity.

Health services are broad, encompassing health, social, and community services, including nutrition services (Joint Steering Committee, 1996). Some nutrition services are care, education and counseling. Not all of these services are accessible to those with

limited income because of the expense that is often incurred to obtain them and/or lack of transportation.

The socioenvironmental approach acknowledges that it is necessary to move away from blaming individuals for the limitations that are inherent in their social setting, such as inadequate income. This research has taken a socioenvironmental approach through considering factors that affect an individual's health that are beyond their immediate control. As stated previously, determinants of nutritional status are multidimensional, including both individual and collective factors. Poverty and inadequate access to food are two risk conditions (collective factors) that contribute to poor nutrition (Labonte, 1993), and are the determinants of nutritional health that were the focus of this research.

2.2 Poverty as a Determinant of Nutritional Health

The poor are often faced with multiple risk conditions in addition to poverty, such as low education/ low occupation status, dangerous or stressful work, low political-economic power, lack of affordable housing, and inadequate access to food (Labonte, 1993). Poverty, and the associated risk conditions, is well correlated with poor nutritional health status, including the rate of low birth weights, incidence of disease and decreased life expectancy among lower socioeconomic groups (ILSI, 1990).

According to Campbell and Horton (1991), the macronutrient and caloric intake of people rises as their income increases, as quantity and quality of food are often limited by income. Female-headed households have a greater proportion of apparently inadequate diets. Nutritional status improves significantly for calcium, iron, thiamin, riboflavin, niacin, vitamin C and folate with higher income as demonstrated by a greater incidence of deficiency among the poor (Campbell & Horton, 1991).

The rate of low birth weight (LBW) in Canada among very poor inner city residents is as high as 10%, which is almost double the rate in the general population (Joint Steering Committee, 1996). The incidence of low birth weight among the poor has been linked to insufficient quantities of food intake by the mother, which may lead to nutrient deficiencies (Bhutta, 2000).

The incidence of disease is significantly higher for people living in poverty and can be linked to diet. Death rates from circulatory disease, lung cancer, injuries and suicides are higher among the poorest neighborhoods on a per capita basis (Statistics Canada, 1996). Individuals with the highest poverty rate have shorter life spans and a higher incidence of disabilities than people of higher income (MacIntyre, 1997). Life expectancy and health status increase as income, education, or social status rise (Advisory Committee on Population Health, 1996). Low educational achievement has been linked to lower self-rated health (Advisory Committee on Population Health, 1996).

High blood pressure, hypercholesterolemia and obesity are all nutrition-related conditions, the incidence of which are inversely related to income (Statistics Canada, 1996). These conditions are influenced by food intake. For example, high fat intake is common among low-income groups because of the low cost and high caloric density of these foods. (ILSI, 1990)

2.3 Definition of Poverty

Poverty is a widely used term that lacks a common universal meaning. It can be described in absolute or relative terms and determined directly or indirectly. Poverty is broadly defined as “the condition of being poor or needy” (Avis, Gregg, Neufeldt & Scargill, 1979, p. 891).

2.3.1 Absolute Poverty

A person living in absolute poverty lacks what is needed or lives in a state of inadequacy (Avis et al., 1979). Yet, this definition in itself requires subjective decisions about what individuals need. If we arbitrarily limit what is needed to food, water and shelter (Labonte, 1993) absolute poverty considers only mere physical existence, rather than quality of life. Life, when one only has basic food for sustenance and shelter to protect one from the cold, merely involves a long wait for an inevitable death. Absolute poverty fails to grant people the right to obtain necessities in socially acceptable ways. For example, individuals in absolute poverty frequently rely on charity to meet their basic needs (Webber, 1992).

Conservative proponents of the absolute approach often define poverty narrowly as lack of basic necessities. Fewer people are, therefore, identified as poor and the poor are limited to the most desolate. Critics (Ross, Shillington & Lochhead, 1994) suggest that this approach fails to provide a clear picture of the magnitude of poverty, particularly in the developed world where the general population has come to expect much more than the basics as the norm. They argue that people should be given the opportunity to live fulfilling lives. Longevity in and of itself does not ensure a good quality of life or the ability to actively participate in society. Therefore, a more relative approach to defining poverty is suggested.

2.3.2 Relative Poverty

Relative poverty is much broader in scope than absolute poverty, yet it is more realistic in describing the situation in the developed world (Riches, 1996). Relative poverty refers to “the condition of not having enough income to maintain a standard of

living regarded as normal in a community” (Avis et al., 1979, p. 891). Although equality is difficult to obtain in a capitalist society, it is not unreasonable to compare the standard of living within a country. In a country such as Canada, with more than ample resources to provide the basic necessities to all Canadians, it is not logical to have people go without food and shelter or the ability to actively participate in society through recreation. Subjective decisions are required when establishing what should be provided and to whom.

In a relative approach, social, psychological and physical wellbeing is taken into consideration to allow more active participation in society by the poor (Ross et al, 1994). Relative poverty focuses on providing a better standard of living, through active participation, for more people to improve the quality of life rather than merely focusing on longevity.

Sarlo, of the Fraser Institute, is highly critical of the relative approach to poverty because it significantly increases the number of people considered to be living in poverty (Sarlo, 1996). He defines relative poverty as "inequality" and does not see inequality as a problem; absolute poverty rather is the problem. He also points out that inequity is inherent in a capitalist society. He makes the point that in a capitalist society, people who would be considered poor, according to the relative approach, in fact have many luxuries that are above and beyond the basic needs, thus inflating the number of the poor.

According to population health literature, inequality is the underlying problem. Inequality is defined as “a lack of evenness” (Avis et al., 1979, p. 589). Income inequalities seem to have a dual impact on health (National Forum on Health, 1996). The low mortality rates of the rich boost the average life-span but more than offset the shorter

life-span of the poor resulting in a higher than average mortality rate. Differences in relative income are linked to stress for those with low relative income and other factors which adversely effect health. “This suggests that income gradients within the population produce health gradients: the smaller the income differences, the smaller the differences in health status” (National Forum on Health, 1996, p. 129). “The poor also tend to have a lack of control over their destiny, or powerlessness, which is a risk factor for disease” (Wallerstein, 1992, p. 197).

2.4 Measurement of Poverty

The measurement of poverty is as fraught with controversy as the definition. Generally, poverty is measured by either direct or indirect approaches.

2.4.1 Indirect Approach

The indirect approach to determining poverty levels typically uses the average income figures of the general population as a benchmark to determine poverty levels. This approach does not include the cost of goods and services; it uses income as an indirect means to determine what level of income is appropriate to meet basic needs. The benefit of this approach is that it can utilize readily available statistics rather than time consuming costing, which tends to be costly and labour intensive. Similar to the direct approach, the indirect approach can be used to determine absolute or relative poverty levels. Using the indirect approach an income level can be determined to allow a family to purchase essentials for survival (absolute definition), or an income level to actively participate in society (relative definition). While the indirect approach has many positive features, it may not provide a reasonable reflection of actual costs. The previous year’s

income figures are often used when determining costs indirectly, which can result in ongoing shortfalls when these figures are used to set budgets in the current year.

2.4.1.1 Low income cut-offs.

One of the most common indirect means of determining poverty rates is the low-income cut-off (LICO), unofficially, Canadian “poverty lines”. Although Statistics Canada never intended it to be used as a basis for the poverty line, it is frequently referred to as such (Ross et al, 1994): “Statistics Canada itself does not claim to measure poverty; rather, it defines a set of income cut-offs below which people may be said to live in straitened circumstances” (Ross et al, 1994, p. 12). The LICOs are based on an estimate of income spent on essentials. Based on 1992 figures, anyone spending over 54.7% on food, clothing and shelter was considered to be below the low-income cut-off (Ross et al, 1994).

2.4.1.2 Canadian Council on Social Development (CCSD) Income Lines.

CCSD income lines were developed by a national task force in 1973 based on a relative approach to poverty. These lines were not intended to be measures of poverty but, rather, to address the problem of income disparity “by defining a minimum standard of income” (Ross et al, 1994, p. 16). This minimum standard was arbitrarily set at one-half of the income of the average four-member family; it has since been adjusted to reflect a decreased family size of three persons. CCSD lines take into consideration differences in family size using assigned portions of the current reference family of three for smaller families and an increment for each additional family member for larger families. Although this process seems precise, it fails to account for a number of factors

such as differences in cost of living in rural and urban areas. The CCSD lines provide a benchmark that can be used as a rough estimate of the cost of living.

2.4.2 Direct Approach

The direct approach frequently entails the detailed costing of a list or market basket of goods. The direct approach can be used to determine absolute or relative poverty levels. It has been wrongfully assumed that when a direct approach has been used to tabulate costs, they entail merely the basic necessities rather than luxuries. For example, it is not necessary for families to purchase a 'Grade A' premium cut of meat to exceed nutrient requirements, although this item can be easily priced. What is a basic necessity, allows one to actively participate in society or a luxury requires subjective decision. This approach has fuelled arguments for many years (Sarlo, 1996). The direct approach can be very useful as a tool to establish assistance rates and wages.

2.4.2.1 Market baskets.

Standardized market baskets include a list of specific goods of a designated quantity that are usually priced in order to be used as a quantitative measure of costs. The accuracy of comparison of the basket cost to minimum wage or social assistance levels is dependent on the predetermined contents of the basket reflecting reasonable consumption. A market basket of goods and services may be determined based on an absolute or relative approach to poverty.

Market baskets are easy to use as a basis of comparison to determine whether a particular standard of needs is being sufficiently met. For example, priced food baskets can be used to determine whether the social assistance food allowance is sufficient to meet or exceed nutrient needs. However, it is important to consider that costing a food

basket is based on an ideal that assumes that the comparable allowance is not eroded by expenses for other necessities, such as housing or medical supplies. A number of factors can reduce the accuracy of baskets as a means for assessing costs. These include seasonal variability, contents inappropriate for meeting reasonable expectations of the target audience, and varying quality (Katamay, 1995).

2.4.2.2 Metropolitan Toronto Social Planning Council (MTSPC) Budget Guidelines.

The MTSPC uses a market basket approach to determine the “minimum expenditure necessary for social – rather than merely physical – survival” (Ross et al, 1994, p. 18). A direct relative approach is taken to determine the contents of this participatory basket utilizing community input to ensure that people can function socially in a given community, in this case Metropolitan Toronto. This procedure is highly regarded by many social analysts (Ross et al, 1994) and can readily be duplicated in other communities to establish budget guidelines.

2.4.2.3 The Fraser Institute Poverty Lines.

The Fraser Institute, an economic think-tank, Poverty Lines were developed based on a minimalist approach that merely considers physical survival (Ross et al, 1994) and disregards social needs. The poverty lines were determined using a direct absolute approach to poverty. The cost of a limited market basket of goods was estimated for numerous Canadian cities, as well as province-wide for all Canadian provinces, to establish poverty lines for families of various sizes.

Part of the Fraser Institute Market Basket is Christopher Sarlo’s Food basket. This basket is designed to meet minimal nutrient requirements only, and fails to address social

or psychological food needs. The basket was consumed on a trial basis, for up to one month, by members and families of the CDA Nutrition and Food Security Network (1995). Participants that attempted to consume Sarlo's basket found the lack of condiments, such as vegetable oil, vinegar, mustard, ketchup and mayonnaise, as well as both tea and coffee, made consuming the basket very monotonous and challenging (Nutrition and Food Security Network, 1995).

2.4.2.4 Market Basket Measure (MBM).

The Market Basket Measure (MBM) was developed in response to Social Services Ministers' concerns with multiple definitions of poverty, which make measurement of any poverty-reducing initiative difficult. They requested that a consensus definition of basic needs/ poverty levels be developed as an alternative to the numerous current approaches (Federal/Provincial/Territorial Working Group on Social Development Research and Information, 1998). The MBM was developed, based on the following main characteristics:

- costs for food, clothing and shelter are each identified;
- costs for other expenditures are compiled;
- geographic differences in the cost of goods and services are incorporated;
- costs reflect family size; and
- costs are compared to family income available for consumption.

Based on the currently available literature, it is unclear if the Market Basket Measure will conform to an absolute or relative definition of poverty, since available information is restricted to basket development. The Market Basket Measure's primary weakness is reliance upon secondary and imperfect existing data sources.

2.5 Extent of Poverty

The overall Canadian poverty rate in 1997 (the most recent data available), according to the National Council of Welfare (1999), was 17.2%, using Statistics Canada's LICO measure as a basis for comparison. The poverty rates for different family types varied from a low of 7% for couples over 65 years to a high of 57.1% for single-parent mother led families (National Council of Welfare, 1999). A family of four earning minimum wage (\$5.90/hour) would be required to work 118 hours in order to reach the poverty line (Government of Alberta Labour Information Line, personal communication, March 14, 2001). Poverty among female single-parents presents an additional challenge due to the limitation of only one income to meet needs. In 1999, for a family of three, the parent would have to work 102 hours per week at minimum wage (Labour Information Line, personal communication, March 14, 2001) to bring his or her income up to the poverty line. Locally, in Edmonton, the outlook is grim, with 155,000 Edmontonians reporting in 1992 that they lived on income below the poverty line (Foster, 1996), making it difficult for them to fulfil basic needs such as having adequate food. In Edmonton, 70% of single parent families headed by a female live in poverty (Statistics Canada, 1997). This is a harsh reality that illustrates the dire need for more equitable distribution of resources to meet basic needs. Our market economy has resulted in disproportionate distribution of wealth among the socioeconomic sectors, with the bottom 20% surviving on a meager 4% of the overall income (Webber, 1992).

2.6 Poverty Gap

Although the average income in Canada is sufficient to provide for the basic needs of all families, the income disparity is large, resulting in some families' having

large disposable incomes while others cannot provide adequate food and shelter for their families (Yalnizyan, 1998). The poor are getting poorer while the rich are getting richer as the income gap grows. The income among the richest 10% of families with children has increased from 21 to 314 times that of the poorest 10% of Canadian families between 1973 and 1996. In addition to the growing gap, the middle class has decreased by approximately one-quarter during the same time period. Families have coped with low income through relying on more than one income earner; “The dual earner family is now the norm in Canadian society” (Yalnizyan, 1998 p. xi). Increasing the hours worked has been another common coping strategy that has not been effective in increasing the real average income. In fact, 60% of families are earning less, in real earnings, than they were in 1981 when adjusted for inflation.

Poverty is a problem that affects segments of the population directly and all segments indirectly. Many low-income families have difficulty meeting basic family survival needs, according to the absolute definition of poverty. In addition, many families who live in poverty according to the relative definition cannot actively participate in society because they have insufficient income to do so. The limited financial resources of low-income families restrict their economic participation in society, thus impeding economic growth and impacting all segments of the population indirectly.

2.7 Food Baskets

2.7.1 Rationale for Food Baskets

Food choices are a significant factor in determining health, and these choices are often limited by income. Monitoring the cost of a nutritious food basket is vital to ensure sufficient income to meet or exceed basic needs, such as food (Joint Steering Committee,

1996). The cost of food can be utilized in the development of appropriate education programs, that consider the food budget, and to advocate for income support initiatives (Joint Steering Committee, 1996).

2.7.2 Food Baskets as Tools

A nutritious food basket is a food costing tool that is a measure of the cost of healthy eating based on current nutrition recommendations (Ministry of Health, 1998). Food baskets have served many useful purposes including determining levels of compensation, government assistance, wage rates, food costs for programs such as group homes and have been used as an advocacy tool (Health and Welfare Canada, 1990). The cost of food baskets is frequently used as a basis for comparison when subsidy levels for programs at facilities are being determined. The basket costs are also taken into consideration when determining the cost of living. This helps to "ensure that families have the supports they need to nourish their children adequately" (Joint Steering Committee, 1996, p.13), as well as other family members.

2.7.3 Limitations

Food baskets can be a very useful tool but are not intended to serve as a grocery list. Food purchasing patterns differ between cultures, making substitutions advisable to conform to social norms. The most economical, yet nutritious, purchase, may not be what food items are included in the food basket due to seasonal fluctuations in price, availability and consumer preferences (Katamay, 1995).

Although food baskets can be used to compare food costs between regions, it is necessary for the same foods of comparable quality and quantity to be included in order for the comparison to be valid. The cost of food can vary dramatically among geographic

locations. Previously, Agriculture Canada priced food baskets that were similar but contained items in different quantities in order to reflect geographic and local cultural differences (Katamay, 1995). These unique regional food baskets were compared as if they contained the same amount of each food, a valid basis for comparison. Weighting food differently based on regional preferences caused difficulties in making direct cost comparisons. The food basket that was developed for this study is geographically unique to meet the specific needs of the city of Edmonton. The methodology can readily be used as a template to develop food baskets for other regions.

2.7.4 Assumptions

Food baskets vary in price over the course of a year (Ministry of Health, 1998). Numerous factors have an impact on price including climate, cost of transport and labour, price of grain, and market fluctuations. It is assumed that when baskets are priced annually, the fluctuations will even out over the course of a year, resulting in a lower cost some months to offset higher prices other months.

2.7.5 Potential Implications

The cost of food baskets developed using current nutritional recommendations can be used as an aid when setting levels for “Supports for Independence” and other assistance programs to ensure that people have the opportunity to access nutritionally adequate food in a socially acceptable manner.

Developing and monitoring the cost of healthy living, including a nutritious food basket, could be instrumental in ensuring all individuals have access to sufficient income to meet their needs in a socially acceptable manner. In order for people to achieve healthy living, it will be necessary for social assistance and minimum wage to be adjusted to

reflect the cost of items to alleviate the reliance on charity by providing sufficient income.

2.8 Purpose and Objectives

The purpose of this study was to use the cost of a nutritious food basket developed for Edmonton, Alberta, Canada to determine whether government assistance programs and minimum wage are sufficient to allow nutrient needs to be met in a socially acceptable manner. The use of food baskets for pricing involves a direct approach to measurement, and basing the contents of the basket on socially acceptable standards implies a relative approach to poverty.

The objectives of this study, therefore, were:

1. to use a direct relative approach to poverty to develop an Edmonton based Nutritious Food Basket (ENFB),
2. to use the ENFB to determine the cost of healthy eating in Edmonton, Alberta, Canada, and
3. to compare the cost of healthy eating in Edmonton to minimum wage and Supports for Independence (welfare) in order to assess the adequacy of income for families to meet nutritional requirements.
4. to develop methods and procedures that can be used as a template to price the Edmonton Nutritious Food Basket (ENFB) in other regions.

3.0 Methods

3.1 Study Design

A food price survey was conducted during the last two weeks of April, 1999 in Edmonton, Alberta, Canada. The research entailed, 1) developing a validated, nutritious food basket that was culturally acceptable to low-income Edmontonians, 2) Pricing the food basket in different segments of the city, 3) comparing the food basket costs among stores and city locations, and 4) comparing the cost of the food basket to welfare food allowances and minimum wage. The research protocol was approved by the University of Alberta Faculty of Agriculture, Forestry, and Home Economics Human Ethics Review Committee.

3.2 Population of Interest and Unit of Analysis

As low-income families are at greatest risk for food insecurity, this population would be most vulnerable to rising food prices. Low-income Edmonton families, either working or receiving some form of government assistance, were of particular interest for this study due to their potentially insecure food status.

Edmonton is a large city with a population of approximately 929,000 people, according to 1999 Statistics Canada data (Statistics Canada Federal Census, 1999). Edmonton has a population of socioeconomically diverse persons who have numerous ethnic origins. The average Edmonton family size is 3.0 persons, with an income of approximately \$46,500. This income would be sufficient to provide for a comfortable lifestyle for an average family, but in Edmonton 52% of families had an average income of less than \$40,000 (Statistics Canada, 1996). Single-parent families, particularly female-headed, lone-parent ones, are at a greater risk of being low income and unable to

meet their basic needs. Women, on average, earn only 63.1 % of the average male's income, making it more likely that female-headed households live in poverty (Statistics Canada, 1996). In 1996 in Alberta, there were 92,500 single-parent families, including 75,900 female-headed households. The City of Edmonton population includes slightly over 1/3 of all Alberta lone-parent families. Segments of poverty exist throughout Edmonton. A high concentration of poverty is present in central Edmonton where there is older housing.

Grocery stores and supermarkets in Edmonton where people of a variety of income levels shop are the unit of analysis for this study. These stores can be differentiated based on products available for purchase, store size and neighbourhood income level.

3.3 Sampling

3.3.1 Selection of supermarkets and grocery stores.

From among all possible food stores in the City of Edmonton, only supermarkets and grocery stores were eligible for selection, as these stores carry a wide range of foods and represent where people typically do the majority of their food shopping due to a combination of factors including convenience, accessibility, and transportation costs. Convenience stores, bakeries, butcher shops, and specialty food stores were excluded due to their limited selection of foods and typically higher prices.

From a comprehensive list (City of Edmonton Yellow Pages, 1999) of all supermarkets and grocery stores within the city of Edmonton, 30 were selected through stratified random sampling. The following strata were identified according to criteria described below: 1) store size (small traditional, large traditional, superstore/ combination

store), and 2) neighbourhood income level (low, middle or mixed). Criteria for differentiation by store size was obtained from industry definitions and standards (Personal communication, Canadian Association of Grocery Distributors, 1999, April). Small traditional stores (STS) were less than 15,000 square feet, while large traditional stores (LTS) were greater than 15,000 square feet in size. Large traditional stores differ from Super store/ combination stores (SS/CS) by the type of goods and services they provide. Super store/ combination stores typically provide goods that differ from traditional grocery stores including a variety of non-food items such as clothing, videos and electronic appliances to name a few.

Neighbourhood income level was determined by The City of Edmonton (1999) calculated-average-neighborhood income (Statistics Canada Federal Census, 1999), with the population-weighted average incomes for the communities immediately surrounding the stores on all sides comprising the geographical “neighbourhood”. LICOs for an average sized family of 3 were used as a cut-off to differentiate the low-income from middle and upper income families. Upon review of the locations of Super store/ combination stores on major thoroughfares often removed from residential areas, they were not classified based on income but designated as “mixed” income. The assumption was made that these stores tend to draw clientele of a full income spectrum from a larger area due to their locations.

Once stores were segregated according to strata, a random draw was used to obtain the sample. Five stores from each of the following strata were randomly selected: 1) STS/ Low-income, 2) STS/ Middle-income, 3) LTS/ Low-income, 4) LTS/ Middle-income. All ten SS/CS stores were included in the sample, due to their limited number,

all of which were designated as Mixed income. The final sample, therefore, comprised 30 stores, as depicted in Table 1.

Table 1 Summary of Sample Characteristics

Neighbourhood Income Level	STS (#)	LTS (#)	SSCS (#)
Low income	5	5	—
Middle income	5	5	—
Mixed income	—	—	10

3.4 Methodology for developing food baskets

3.4.1 Determining the food contents

The Edmonton Nutritious Food Basket (ENFB) is intended to meet or exceed nutrient requirements, according to the 1990 Nutrition Recommendations (Health and Welfare Canada, 1990), and follow Canada's Food Guide to Healthy Eating (1992). Societal norms and typical eating patterns were considered in the development of the food basket to allow for active participation in society, such as social gatherings at which tea and coffee are served.

A bottom-up participatory research approach was utilized concurrently with a top-down approach to determine the contents of the basket. A blank slate or empty symbolic basket was filled with foods as deemed appropriate by a purposeful sample of Edmontonians (see focus groups). In addition, information on average quantities of food purchased by Canadians obtained from Statistics Canada's Family Food Expenditure Survey (FOODEX) (1996) was used in determining food preferences of the general

population. FOODEX separates food into categories roughly based on the Canada's Food Guide to Healthy Eating (1992) and ranks them according to amount spent on each individual food item. These rankings and the corresponding amounts purchased are a direct indicator of the amount consumed, which can be used as a guideline to determine preferences. The combination of these two approaches to determining basket contents served as validity checks.

3.4.2 Use of focus groups

Two unique focus groups differentiated by their food security status, and consisting of 29 people (total) from economically diverse circumstances, were presented with the challenge of determining what should be included in the food basket. Focus group testing was also used to ensure that acceptability, palatability and food preference needs were adequately addressed for the food items selected to be included in the basket.

3.4.2.1 Selection of the participants.

Selection of focus group participants was done using a variety of methods, resulting in a convenience sample. An initial contact list was provided by the Edmonton Social Planning Council. This list included many people who were interested in volunteering for social change projects, and included both food-secure and food-insecure individuals. The list included 36 persons of which 15 participated in the focus group discussions. The food-secure people listed could generally be characterized as social advocates and did not seem to be representative of the food/ income secure population. For this reason, additional recruitment strategies were employed.

The focus group participants were recruited through a number of avenues to ensure representation of a variety of family types at various stages of life. Recruitment

strategies included: volunteers from community agencies and their clients, word of mouth, and snowball sampling (Kreuger, 1994, p. 84) in which study participants referred others that may be interested. This strategy was very effective and rapidly expanded the potential number of study participants.

The potential focus group participants were contacted and screened by telephone to confirm their interest and suitability for the study, using the selection criteria. The selection criteria including being willing and able to participate in a focus group session, ability to communicate in English, and food security status. Food Security Status was determined using a validated tool, The Cornell Radimer Questionnaire to Estimate the Prevalence of Hunger and Food Insecurity (Kendall, Olson & Frongillo, 1995; Radimer, Olson & Campbell, 1990) (Appendix A). This Questionnaire is used to differentiate types of household and individual food security status.

Food security status is a key variable that could have a significant impact on ones' perspective when decisions are made differentiating a need from a want, as was done in the development of the ENFB. The volunteers were asked to attend the focus group with people that had similar food security status, whenever possible, so as to create an atmosphere for open discussion (Kreuger, 1994). A total of 29 people participated in the groups with 13 and 16 in the food insecure and food secure groups respectively. Groups were not labeled or identified as such to the groups. They were told that people in common life situations would be grouped together.

To help ensure optimal attendance all volunteers were offered a reminder telephone call a day prior to or the day of the focus group. The reminder call seemed to

benefit the research by increasing attendance. All but three of the 32 volunteers (91%) followed up on their commitment to attend and participate in the designated sessions.

3.4.2.2 Focus Group Interview Guide.

The focus group discussion was guided by open-ended questions to determine what the families and individuals would like to include in the basket. The guiding questions were used as prompts to stimulate discussion, act as probes, guide discussion, clarify ideas, and ensure that preferences and social needs were taken into consideration. (See appendix B for guiding questions) The discussion resulted in a wide variety of food items being suggested. The key phrase "adequate income" to feed your family gave the low income food insecure families an opportunity to suggest items beyond their usual buying patterns. The initial focus group discussions resulted in a large list of food items, which were reviewed further to determine what was needed on a regular basis.

3.4.2.3 Follow-up Focus Group.

After the two initial focus groups generated a list of food items to include in the ENFB, an additional combined focus group was formed. This focus group was formed from the two previous focus groups to act as a check to validate basket contents. The combined focus group participants were selected through stratified random sampling based on their food security status. A few of the people selected to participate in the final merged focus group were unable to do so due to prior commitments. Replacements were also determined through stratified random sampling to minimize any income-related variables.

The combined group participants were each given a compiled list of food items from the previous groups, which was reviewed systematically to exclude items that would

not be consumed on a regular basis. Food items were informally put into menus by focus group participants to ensure all necessary foods that were consumed on a regular basis were including in the list of foods. At this time participants were also asked if they would like to include any additional items, not already on the list. Very few foods were added at this time due to the initial wide scope, indicating data saturation.

3.4.2.4 Focus group logistics.

The focus group sessions took place in a centrally located downtown hotel that was well served by public transportation and had ample, well-lit parking. This helped to ensure accessibility by people with diverse economic resources and transportation needs. All participants were directed by the researchers or hotel staff to the meeting room, where the researchers warmly welcomed them. Everyone was encouraged to help him or herself to food prior to the sessions commencing. The atmosphere was conducive to creating the stage for an open and honest discussion. This was evident by the amount of conversation before and throughout the focus group meeting. The majority of the participants were familiar with another person in attendance, which helped increase their comfort in the group setting. Nametags were also distributed to all persons in attendance, which helped facilitate the discussion.

Prior to the formal discussion commencing to determine the food basket contents, the information letter was reviewed (Appendix C). The purpose, time commitment, benefits, risks, confidentiality and freedom to withdraw were discussed orally, in addition to the written information provided, including the consent form (Appendix D), which was completed at this time. Verbal permission was also obtained to

audiotape the discussion, allowing for documentation after the focus groups were concluded.

3.4.2.5 Incentives.

Focus group participants were provided with a light supper and refreshments as an incentive to attend the focus group. The initial focus group discussions were conducted on different days with individuals who had differing food security status. All food-insecure participants, as determined by the Cornell Radimer Questionnaire, were each given \$25 per focus group session attended in order to offset any expenses incurred, such as childcare and transportation. The initial food-secure focus group did not receive money to offset expenses but were provided with food and refreshments. The combined focus group session was composed of individuals with varying food security status. It was decided that all combined focus group participants would each be given \$25 to offset expenses and to prevent any differentiation based on food security status. Other incentives that might have been of benefit to participants included an open forum for discussing food security concerns and being part of the process towards creating positive change. The focus groups seemed to serve as a forum for the airing of frustrations with the current social assistance system.

3.4.2.6 Limitations.

The limitations of the focus groups were that it represented only a convenience sample drawn from willing individuals who resided in the Edmonton area and might not in fact have been representative of the population. Nonetheless, all attempts possible were made to ensure that both food-secure and insecure families were represented.

Demographic data were obtained from the focus group to ensure a balance between food

secure and food insecure participants. People in various life stages were included from singles to parents of grown children that are no longer residing with the parents. In addition, limitations inherent in conducting focus groups also restricted the focus group size in order to allow for a manageable size and for active participation.

3.4.3 Calculation of nutrient and food quantities

Once food contents were identified, it was necessary to determine the quantities of foods necessary to meet requirements. Canada's Nutrition Recommendations (1990) served as a guide to ensure that minimum nutrient requirements for each age and sex combination were met or surpassed. Food Smart Millennium Version (Sasquatch Software, 1999) nutritional software was used to determine the nutrient content of foods and the amount of each food required to meet nutrition recommendations. Food Smart is a Canadian nutrient analysis program that can be used to calculate the nutrient content of a particular food intake and the percentage of the total requirement.

The quantity of food that one is required to consume to meet nutrient and caloric requirements varies with age. The final list of food, as determined by the combined focus group, was used to compose the menus (Appendix G). The menus and resulting amount of food for each person was determined based on the following considerations:

- * Canada's Food Guide to Healthy Eating (CFGHE) recommended the number of servings and appropriate serving size
- * The Recommended Nutrient Intake (RNI) age and gender appropriate nutrient recommendations.

Calculation of nutritional requirements were completed for members of two "sample families" using Food Smart nutritional software (Sasquatch Software, 1999). The cost of healthy eating was calculated for both a three-member female-headed family and a four-member family with two parents. The family size was determined based on Statistics Canada average family size and was expanded to include a four member family, as was typically used as a benchmark for past research. The sample three-member family is composed of two children, a boy and a girl, ages 3 and 7 respectively, and a mother, age 25 to 49. The sample four-member family included all member of the three-member family in addition to the father, age 25 to 49 years.

The menus, which met CFGHE, were then analyzed by Food Smart for nutrient content. The necessary adjustments were then made to meet the RNI for each person to meet or exceed macronutrient and micronutrient recommendations.

3.5 Costing the food basket

3.5.1 Food Price survey

The survey of grocery store prices was conducted in late April. The 1998 Ministry of Health publication "Monitoring the Cost of a Nutritious Food Basket Protocol" determined that May or June costs could be used as an average food cost because they closely reflect the Consumer Price Index (CPI) annual average. This is also supported by the reasoning that spring is the time of year that will least be affected by changes in price due to a recent harvest or high winter transportation costs (Ministry of Health, 1998).

Food items in the ENFB were pilot priced at an Edmonton grocery store to determine product availability and to determine most appropriate family size for pricing, so as to minimize variability in data collection. The size of food items to be priced was

determined by considering such factors as shelf life and what an economical purchase quantity would be for the family without eroding the food budget. All food items were listed on the food price survey form along with the recommended product size (Appendix E). Additional columns were also included for brand, type or cut (where appropriate) in addition to cost.

A standardized list of food items representing the contents of the EFNB was priced. The surveyors were given explicit directions on the food costing procedures and were encouraged to contact the researcher with any questions (Appendix F). The foods were grouped on the pricing form according to how they typically appear in grocery stores and supermarkets to simplify the process of food pricing. The cost of the lowest priced product in the predetermined size was recorded. In addition, the pricers were asked to record the brand name of the food item and identify whether it was a store brand or national brand. Unit prices were also referenced and recorded when available for purposes of comparison. Additional strategies that were employed to ensure minimal costs included pricing sale items, deducting the value of coupons that were available in-store and applying discounts that were readily available to the pricer. Although using coupons obtained from sources outside of the stores can result in savings, it is unrealistic to assume that all people have equal access to these savings on a regular basis, therefore, external coupons were not accounted for in pricing.

The price surveyors included senior university nutrition students familiar with pricing and adult consumer volunteers who were familiar with pricing and frequently utilized this strategy to save. The senior nutrition students completed the pricing at 22 of 30 stores priced, while the remaining stores were priced by adult consumers. The adult

consumers were trained individually to ensure accurate and thorough information was obtained. These volunteers required minimal supervision and were self directed to complete the required task. Because advertised food prices in Edmonton area grocery and supermarkets typically change weekly, pricing was completed over a two-week time span to minimize the price fluctuations due to market conditions and competition. The contents of the ENFB were priced at 30 retail food stores that are located within the city of Edmonton corporate limits. Pricing in each store took approximately 90 to 120 minutes depending on the store size. The researcher carried out additional checks when discrepancies in prices were evident.

3.5.2 Determining the cost of the basket

Food prices for each food item at all stores were entered into Food Smart Software (1999), which automatically calculated the conversion from as-purchased food portions to edible portions for most foods. It is necessary to convert from as-purchased to edible portions for food because some foods change in volume or amount during preparation to realize cooking losses and gains. For example, cooking losses may result from peeling fruits and vegetables, while gains can result from expansion of rice during cooking. Other foods that needed conversion, not incorporated into the Food Smart Software, were calculated using The Handbook of Food Preparation (American Home Economics Association, 1980).

The cost of the ENFB was determined for each sample family size at each individual store. This was done using the food price converted into edible portion servings, from Food Smart software, for each family. Using Microsoft Excel 97 spreadsheets, the cost per edible portion for each food item, at each store, was multiplied

by the number of servings required to meet the RNIs for each sample family member as previously calculated and described in the section “Calculation of nutrient and food quantities”. The costs of all foods were summed via Excel to provide the weekly food basket cost for each family member at each store. The weekly cost was then multiplied by 4.3 weeks/month to determine the monthly food basket cost per person. The costs of food for each family member was summed to give the cost of healthy eating for a given family size.

3.6 Data analysis

The food basket costs for each of the two representative family sizes (3 and 4 member) in each store (30 stores) comprised the data set. In total, data were available for 30 stores X 2 family sizes. The 30 stores could be sub-classified according to original strata representing the independent variables (store size and neighbourhood income level). Statistical analysis using SPSS v. 10 (1999) for Windows was performed. Descriptive statistics (mean \pm SD) were calculated for the cost of the food basket for each of the two family sizes for each store type and each neighbourhood income level. Simple two-tailed t-tests were calculated to assess differences in costs between neighbourhood income levels (middle vs. low); and between store sizes within each neighbourhood income level. A 95% confidence interval was applied. Analysis of variance (ANOVA) was used to compare the mean cost for each store type (STS vs. LTS vs. SS/CS). A comparison of food basket costs to current minimum wage and welfare allowances was also done to determine income adequacy.

4.0 Results and Discussion

This chapter will present the results of development and utilization of the Edmonton Nutritious Food Basket (ENFB), in meeting the study's objectives:

1. to use a direct relative approach to poverty to develop an Edmonton based Nutritious Food Basket (ENFB),
2. to use the ENFB to determine the cost of healthy eating in Edmonton, Alberta, Canada, and
3. to compare the cost of healthy eating in Edmonton to minimum wage and Supports for Independence (welfare) in order to assess the adequacy of income for families to meet nutritional requirements.

4.1 Food Basket Development

4.1.1 Focus Group Data

The Edmonton Nutritious Food Basket (ENFB) was developed using a bottom up participatory approach utilizing the input of diverse focus groups comprised of both food secure and food insecure individuals. These individuals who represented their families were included in focus groups to ensure that the ENFB accurately reflected reasonable food purchasing consumer preferences. Demographic data (Table 2), food purchasing strategies (Table 3), perceived nutritional needs (Table 4), money saving strategies (Table 5) and food security status data (Appendix A) were collected to document the composition of the group as compared to the population, and to provide context for interpretation of pricing data.

Demographic profiles of focus group participants summarized in Table 2 reveal that the majority of focus group participants were two parent families residing in houses,

in all areas of the city, with about 62% renting their accommodations. More food secure participants were homeowners than their food insecure counterparts, of whom 50% and 23% were owners respectively. The number of people indicating that their average household income was in excess of \$1,600 per month was approximately 52% for the food secure group, twice that of the food insecure group, as would be expected. Approximately 79% listed employment as their main source of income in the last year. As would be expected, non-employment income was reported with much greater frequency in the food insecure group.

One common finding among focus group participants is that the majority of their grocery shopping is done at stores that are within approximately 2 km of their home due to convenience, store familiarity, close proximity and the ease of transportation. This finding supports community pricing being an accurate reflection of the local food cost. It was also noted that as the purchase amount increases consumers were more willing to grocery shop in stores further from their place of residence, so as to obtain better prices.

Table 2: Demographic Description of Focus Group Participants

	Food Insecure Group N= 13	Food Secure Group N= 16	Total N= 29
Housing			
House (townhouse and all single family-dwellings)	6	14	20
Apartment (4+ self contained units)	4	2	6
Duplex/ threeplex (2 and 3 family dwelling)	2	0	2
Other (basement)	1	0	1
Rent	10	8	18
Own	3	8	11
Family Type			
Two parent (including common law & childless families)	6	15	21
Single parent	4	1	5
Single, living alone	2	0	2
Other (single parent living with relatives)	1	0	1
City Area			
Northwest	2	8	10
Northeast	1	6	7
Southeast	7	0	7
Central	1	1	2
Southwest	2	0	2
Suburb (St. Albert)	0	1	1
Income			
Income Amount			
0-\$399	2	0	2
\$800- \$1199	4	0	4
\$400- \$799	1	0	1
\$1200-\$1599	0	3	3
\$1600+	5	10	15
not disclosed	1	3	4
Income Source			
employment	8	15	23
government assistance	5	0	5
tax credits	2	0	2
child maintenance	1	0	1
pension	0	1	1
student grant	1	0	1

Insufficient monthly income to meet ones' needs and wants is much more common in the food insecure group, as expected, making the use of cost saving strategies necessary (Table 3). The saving strategies used varied for the food secure and food insecure groups. The food secure indicated that they often reduce spending on clothing and other, while the food insecure reducing spending on transportation, utilities, food and personal care. (Table 3). These data support the premise that food basket development based upon consumer purchasing patterns alone may reflect necessary spending restrictions that undesirably influence nutritional adequacy.

Table 3: Food Purchasing Strategies

	Food Insecure Group N= 13	Food Secure Group N= 16	Total N= 29
Income			
Sufficient Monthly Income			
Yes	8	15	23
No	5	1	6
Cost Saving Strategies (reduce spending on)			
Clothing	8	4	12
Other (entertainment, eating out, extras, make gifts)	2	5	7
Transportation	5	0	5
Utilities	3	0	3
Food	3	0	3
Personal care items (toothpaste, soap, etc.)	3	0	3
Rent or mortgage	0	0	0

The majority of focus group participants indicated that their perceived nutritional needs were met in the previous day but over one-third believe their nutritional needs were

not met daily in the past month (Table 4). As expected, the majority of those who perceived their needs were not being met were from the food insecure group.

Over 40% of the study participants say they need more vegetables and fruits to meet their nutritional needs, with twice as many claiming inadequacy in the food insecure group as the food secure group. Meats and alternatives were reported as lacking in 30% of the food insecure group, while none of the food secure participants reported needing more to meet their nutritional needs.

Table 4: Perception of Meeting Nutritional Needs

	Food Insecure Group N= 13	Food Secure Group N= 16	Total N= 29
Nutritional Needs			
were met yesterday			
Yes	10	14	24
No	2	0	2
Don't know	1	2	3
were met daily in last month			
Yes	6	12	18
No	6	4	10
Don't know	1	0	1
What does your family need more of to meet nutritional needs?			
Vegetables and fruits	8	4	12
Milk products	3	3	6
Grain and cereal products	3	3	6
Meats and alternatives	4	0	4
Other (dairy substitute & baking needs)	2	0	2

Strategies that are undertaken when families are short of food and do not have money to buy more include, in descending order of frequency: buying less expensive or lower quality food, cutting the meal size for adults and getting food from community agencies (Table 5). Buying less expensive or lower quality food, the most common response, was incorporated in the basket development when making purchasing decisions by the researcher, for example, in the decision to include generic products. This was done whenever the focus group indicated the quality of the generic or store brand food items were acceptable. This strategy was undertaken to minimize food waste and keep costs down, as cost saving would not be achieved in the long- term if the product was deemed to be unacceptable and another had to be purchased to replace it.

Table 5: Food & Money Shortage Strategies

	Food Insecure Group N= 13	Food Secure Group N= 16	Total N= 29
Food & Money Shortage Strategies			
Buy less expensive or lower quality food	7	6	13
Cut the meal size for yourself or significant other	7	2	9
Get food from soup kitchen, church or food bank	7	1	8
Buy food on credit	3	4	7
Borrow money from friends or relatives	3	2	5
Skip a meal so child(ren) could eat better	5	0	5
Other ex. skip meals, get food from friends/family, work for food	3	1	4
Cut the meal size for your child(ren)	1	0	1
Get a food voucher from social worker	1	0	1
Sell or pawn possessions	2	0	2

In summary, focus group data suggested that the basket was developed based upon a sample of Edmontonians from various income groups. Insights into their perceived nutritional needs and their shopping strategies provided information for basket development. These insights included, but are not limited to: which foods should compose a nutritious food basket, social norms and the inclusion of generic products.

4.1.2 Food Basket Contents

The focus group discussion resulted in a wide variety of food items (in excess of 300) being suggested. Suggestions ranged from simple (fresh fruits) to extravagant (free-range corn fed chicken and natural peanut butter). The key phrase "adequate income" to feed your family gave the low income food insecure families an opportunity to suggest

items beyond their usual buying patterns. The two initial focus group discussions resulted in a combined total of 135 food items, after the initially generated lists were reviewed further to determine what was needed on a regular basis. The combined focus group mutually agreed upon a list of food items, which are used on a regular basis, as vital components of a socially acceptable food basket.

Table 6 summarizes the contents of the Edmonton Nutritious Food Basket (ENFB). Focus group participants agreed that the food items that they did not consume on a regular basis could be substituted for other food items included in the ENFB. This would allow versatility to encompass seasonal price changes and availability, in addition to cultural differences. The ENFB contains 68 foods, which is comparable to Agriculture Canada's Nutritious Food Basket (Robbins & Robichon-Hunt, 1989) and the National Nutritious Food Basket (Lawn, 1998), which contain 64 and 66 food items respectively. The Thrifty Nutritious Food Basket (Robbins & Robichon-Hunt, 1989) contains only 43 foods items and has been criticized for its lack of variety (Katamay, 1995).

It is important to note that the ENFB was developed based on a conservative approach. Ready-made snack foods were not included but the ENFB contains the items necessary to bake snack foods like muffins, cakes and cookies.

Table 6
Content Of Edmonton Nutritious Food Basket (ENFB)

Fresh Fruits & Vegetables

apple, red
banana
broccoli
carrots
celery
cucumber
lettuce, iceberg
onion
orange
potatoes

Processed Fruits & Vegetables

corn, canned, whole kernel
fruit juice, tetra, orange, unsweetened
mushrooms, canned, pieces
pineapple, unsweetened, canned
raisins, seedless
sauce, tomato, hunts
tomatoes, whole or crushed, canned
vegetables, mixed, frozen

Meats & Alternatives

beans with pork, baked, canned
beef, ground, regular
eggs, large
kidney beans, canned
peanut butter, chunky or smooth processed
peanuts, blanched, unsalted
poultry, whole or pieces
roast beef
tuna in water, canned
wieners, national brand, beef & / or pork

Fats & Oils

margarine, soft, tub
oil, vegetable
salad dressing, thousand island, bottled
vegetable shortening

Milk Products

cheese, cheddar, regular, 31% m.f.
ice cream, vanilla
milk, 2%, fluid

Breads & Cereals (Grains)

bread, sliced, whole wheat
cereal, cheerios, general mills
cracker, soda, unsalted
flour, all purpose (robin hood or five rose)
macaroni & cheese dinner
pasta (dry)
popcorn, kernel
rice, white
soup, canned, cream of mushroom

Other foods

cocoa powder
coffee, regular, ground
sugar, granular
sugar, yellow or brown
tea

Condiments

baking powder
baking soda
bouillon, dry, beef or chicken
corn starch
honey, creamed
jelly, strawberry
ketchup, Heinz
lemon juice, concentrate
mayonnaise
mustard, prepared
pepper
pickles
salt
soup, dehydrated, onion
soy sauce
syrup, pancake
vanilla extract, artificial
vinegar
worcestershire

The contents of the ENFB is not intended to be a grocery list nor is it intended to restrict or deny, but rather it is intended to act as a bench mark to establish a reasonable living food budget that is nutritionally balanced. For example, foods that do not provide nutritional value, but are typically included as part of the diet (such tea and coffee) were considered reasonable.

The ENFB was developed based on the assumption that all necessary foods for cooking (such as condiments) should be include to more accurately reflect the consumption needs of the population. Another assumption is that all necessary food items are purchased as needed on a short-term basis, so as not to erode the food budget by purchasing large quantities and to avoid waste through deterioration. The product size used for pricing purposes took into consideration the family size, amount of consumption, shelf life and budget restrictions, as well as social needs.

The ENFB differs from other food baskets, like the National Nutritious Food Basket (NNFB, Lawn, 1998), in that it is not based on the consumer price index (CPI). A significant limitation of the NNFB is that food items and product sizes were selected based on the consumer price index (CPI), rather than based on consumer preferences. Another limitation of baskets based on CPI is that the foods priced are restricted to national brands, which are typically more expensive. The focus groups used in the development of the ENFB did not restrict the food items to national brands, but rather found generic and store brands to be an acceptable alternative without sacrificing quality, for most food items. The national brand foods that were more socially acceptable included prepared cold cereal, flour, ketchup, tomato sauce and wieners. The use of generic and store brands, which were generally more economically priced than national

brands, allowed the cost of the food basket to more accurately reflect actual consumer purchasing patterns, thus resulting in a lower priced basket.

The food items selected for inclusion in the ENFB are similar to those identified in the Canadian Survey of Family Food Expenditure (FOODEX) (1996) highest average per person consumption. FOODEX (1996) was a Canadian food consumption survey of people from all income quintiles and provinces. Differences in food purchasing were not significantly different when all income quintiles were averaged (FOODEX, 1996), although the first and fifth income quintiles did differ. The fruit selections for the ENFB matched the FOODEX data including all the most frequently consumed fresh fruits and fruit juice. The ENFB differed slightly in that it included raisins but excluded dried fruit. Dried fruit was excluded after pricing determined its limited availability and high cost. Canned pineapple was included in the ENFB, rather than canned mixed fruit, due to preferences. The ENFB survey has all the highly rated vegetables selected for inclusion with a few slight changes, due to seasonal price fluctuations and availability. These changes included substituting canned corn, mushrooms, and tomatoes for fresh ones. Canned baked beans were also included by the focus group, despite the fact that the total combined amount consumed of other beans was higher in FOODEX. It is reasonable to assume that most of the other beans were grouped together due to their individual consumption being low, compared to baked beans. The food items selected for inclusion in the following categories also matched FOODEX data including sugar and sugar preparations, coffee and tea and fats and oils. Milk products and grain products selected for inclusion also closely matched FOODEX data with the exception of including cheddar cheese rather than processed cheese, which had the highest FOODEX per person

consumption average, although cheddar cheese was rated second to processed cheese. Highest rated meat choices were also similar with the exception that pork loin cuts were consumed, according to FOODEX data, more frequently than all beef cuts rated separately, with the exception of ground beef. Wieners were included in the ENFB as representative of cooked meat and preparations by the focus group, although other meat preparations and other ready cooked meats were rated higher by FOODEX. Relative consistency of the ENFB contents with FOODEX enhances the validity of the ENFB.

The National Nutritious Food Basket (Lawn, 1998), differs from the ENFB in a number of ways. The variety of food items contained in the ENFB is limited when compared to the National Nutritious Food Basket, contents of which were determined using FOODEX data (Lawn, 1998). For example, the National Nutritious Food Basket included both white and whole-wheat flour and bread, whereas the ENFB only included whole-wheat bread. It is reasonable to assume that whole wheat and white are similar in price and interchangeable, rather than including both varieties. Another area where the ENFB differs is that the only type of fish included was canned tuna, while canned salmon and frozen fish fillets were in the National Nutritious Food Basket. Frozen fish was initially included when prices were being gathered for the ENFB, but was later eliminated due to lack of availability and the high cost.

4.1.3 Nutrient Analysis of Food Basket

The 68 selected food basket items were incorporated into menus (Appendix G), which were broadly checked for adequacy in comparison to Canada's Food Guide to Healthy Eating (1990). Computerized nutrient analysis using Food Smart software (1999) is summarized in Tables 7 & 8. The foods contained in the ENFB provide sufficient

variety to meet (100%), or surpass (>100%), recommended nutrient intakes (RNI) (Health and Welfare Canada, 1990) of all micronutrients (Table 7).

Table 7				
Average Daily Nutritional Adequacy of the ENFB (Micronutrients)				
Nutrient Name	Father % RNI	Mother %RNI	Daughter % RNI	Son % RNI
Calcium (mg)	204	193	209	220
Folate (mcg)	216	181	485	437
Iron (mg)	228	109	147	206
Magnesium (mg)	228	203	569	461
Niacin (NE)	258	267	249	256
Phosphorus (mg)	215	195	355	377
Protein (g)	177	166	351	356
Riboflavin (mg)	255	278	324	280
Thiamin (mg)	226	219	230	222
Vitamin A (RE)	646	566	804	751
Vitamin B12 (mcg)	554	515	604	528
Vitamin C (mg)	835	695	808	972
Vitamin D (mcg)	347	301	142	336
Zinc (mg)	127	130	194	188

With respect to macronutrients, the percentage of energy being derived from each macronutrient for each individual family member is consistent with recommendations (Table 8). The percentage of energy from carbohydrates varies from a low of 53% to 56% for the reference family members' sample menu. Both incomplete and complete protein sources combine to form the resulting 16-17% energy dietary intake of protein, which is just slightly higher than the recommendation. The composition of the ENFB and sample

menus resulted in a desirable dietary intake that followed the recommended dietary composition including limiting fat intake.

The percentage energy needs that are being met from the ENFB vary from 97-100% for individual family members (Table 8). Other food baskets, such as the NNFB (1990), have included excess caloric intake to incorporate a 10-15% allowance for waste beyond the RNI. This conservative basket did not allow for waste, except for cooking losses, which is accounted for in nutrient analysis.

Table 8				
Nutrient Analysis of Edmonton Nutritious Food Basket Per Family Member				
	Calories	Carbohydrate	Protein	Fat
Family Member	(% RNI)	(% energy)	(% energy)	(% energy)
Recommendation	100%	≥55%	10-15%	≤30%
Father	98	56	16	29
Mother	100	53	17	30
Son	97	54	17	29
Daughter	98	55	17	28

According to FOODEX, average per week consumption of spices of .006 kg is equivalent to about 312 g per person per year. Based on this amount and average prices of retail packaged spices, the total cost of spices per family member would be about \$8 per family member annually. Because the cost of spices is relatively low, compared to yearly food costs, spices, other than salt and pepper for seasoning, were not added to the cost of the ENFB. A percentage allowance for spices was not added onto the cost of the ENFB, as has been done for other food baskets, as the method proposed by the Ministry of Health (1998). This method includes 5% of the cost of the food basket automatically to account for the cost of spices, seasonings, condiments, baking supplies, soup, tea and

coffee. The ENFB has not included such an allowance due to the inclusion of some seasonings, condiments, baking supplies, soup, tea and coffee in moderate amounts as was deemed necessary by the focus group to make the food palatable.

4.2. Food Basket Cost

The cost of healthy eating in Edmonton, Alberta is presented and discussed according to a number of independent variables in the following sections. It is important to note that the ENFB was developed based on a conservative approach whereas an allowance was not incorporated for plate waste.

The price for the ENFB varies from \$260.06 to \$346.00 for a 3-member family and \$386.72 to \$515.81 for a 4-member family (Table 9). This difference in the basket cost can have a large practical impact on people that struggle to meet their basic needs. For example, the cost of the ENFB ranged by \$57.27 and \$87.40 for a family of 3 and 4 respectively within the city, when comparing the cost at the lowest priced store to the highest priced store. An annual cost saving of \$687.24 and \$1,048.80 could be achieved by shopping at the lowest cost store while consuming the same foods.

The mean monthly cost of the ENFB for a family of 3 and 4 respectively is \$309.86 and \$461.02 (Table 9). The cost of food alone leaves a mere \$93, for a family of 3, and \$118, for a family of four living on welfare to pay for all other expenses excluding housing. This amount is not likely to even cover monthly public transportation costs for a family, much less a telephone to use for emergencies and employment purposes.

The cost of the ENFB at the SS/CS included both the highest and the lowest overall cost when comparing the basket cost at all 30 stores. This is an interesting result

considering the common expectation is that groceries should cost less at SS/CS. The highest priced store was located closer to higher income areas than the other SS/CS.

TABLE 9
Edmonton Nutritious Food Basket Monthly Cost

Store Type	average income level	3 member family	4 member family
large traditional	low	\$ 305.02	\$ 452.13
large traditional	low	\$ 306.59	\$ 457.52
large traditional	low	\$ 308.24	\$ 458.23
large traditional	low	\$ 309.60	\$ 460.63
large traditional	low	\$ 342.58	\$ 511.55
large traditional	middle	\$ 292.41	\$ 434.27
large traditional	middle	\$ 298.55	\$ 445.61
large traditional	middle	\$ 302.47	\$ 449.81
large traditional	middle	\$ 318.23	\$ 473.93
large traditional	middle	\$ 319.64	\$ 476.88
small traditional store	low	\$ 285.31	\$ 424.15
small traditional store	low	\$ 301.90	\$ 449.09
small traditional store	low	\$ 316.47	\$ 469.98
small traditional store	low	\$ 325.67	\$ 484.27
small traditional store	low	\$ 338.11	\$ 502.62
small traditional store	middle	\$ 305.30	\$ 454.38
small traditional store	middle	\$ 313.22	\$ 465.38
small traditional store	middle	\$ 332.81	\$ 495.66
small traditional store	middle	\$ 333.35	\$ 495.70
small traditional store	middle	\$ 336.64	\$ 503.92
super/combination store	mixed	\$ 260.06	\$ 386.72
super/combination store	mixed	\$ 266.17	\$ 396.12
super/combination store	mixed	\$ 277.42	\$ 410.23
super/combination store	mixed	\$ 290.13	\$ 429.95
super/combination store	mixed	\$ 295.97	\$ 439.78
super/combination store	mixed	\$ 300.13	\$ 445.72
super/combination store	mixed	\$ 307.08	\$ 455.58
super/combination store	mixed	\$ 317.53	\$ 471.23
super/combination store	mixed	\$ 343.08	\$ 513.80
super/combination store	mixed	\$ 346.00	\$ 515.81
	mean	\$ 309.86	\$ 461.02
	S.D.	\$ 21.92	\$ 33.32

4.2.1 Food Basket Cost by Store Type

Food Basket costs by store type are presented in Table 10. Analysis of variance (ANOVA) were calculated comparing the mean cost for each store type and found not to be significantly different. This demonstrates that the cost did not vary significantly between small traditional stores, large traditional stores, and superstore/ combination stores but trends were noted and a practical price difference was found.

The mean cost of the basket was lowest at the Super store/ combination stores overall. As mentioned previously, these stores are centrally located, less convenient and could increase the transportation cost, due to their distance from home. Despite the mean food cost being lower, the cost savings in purchasing the groceries would not necessarily be realized. However, great variation in price of the ENFB was found at SS/CS which included both the highest and lowest basket cost when all stores were compared. Finding the highest price at a SS/CS was unexpected but could potentially be attributed to the average neighbourhood income.

The mean basket cost is lower at the large traditional stores when compared to the mean cost at the small traditional stores. This difference in cost could be accounted for by the buying power of the larger stores obtaining the same products at a lower initial cost. They can also afford to make less profit per item due to the sheer volume of product sold. The increased buying power and amount of merchandise sold can account for the decrease in the mean basket price as the store size increases.

Table 10					
ENFB Monthly Cost by Store Type					
Store Type	Number	Family of 3 Mean \pm S.D.	p-value Family of 3	Family of 4 Mean \pm S.D.	p-value Family of 4
STS	10	\$318.88 \pm \$17.55	-	\$474.52 \pm \$26.54	-
LTS	10	\$310.33 \pm \$13.98	-	\$462.06 \pm \$21.44	-
SS/CS	10	\$300.36 \pm \$29.23	-	\$446.49 \pm \$44.44	-
All	30	\$309.86 \pm 21.92	.169	\$461.02 \pm 33.32	.174

4.2.2 Food Basket Cost by Neighbourhood Income Level

The cost of the ENFB was compared for 20 stores in low and middle income areas. Statistical analyses (T-tests) were calculated and prices for stores in each neighbourhood income area and found not to be significantly different (Table 11).

Table 11					
ENFB Cost by Neighbourhood Income Level					
Income Area	Number	Family of 3 Mean \pm S.D.	p-value Family of 3	Family of 4 Mean \pm S.D.	p-value Family of 4
Low	10	\$313.95 \pm \$17.31	-	\$467.02 \pm \$26.13	-
Middle	10	\$315.26 \pm \$15.59	.250	\$469.55 \pm \$23.75	.245

The lack of difference was unexpected based on previous research findings (Travers, 1994) and industry practices such as zoning. Zoning is not an overt practice that is well known to the general population. However, zoning is exemplified by the comments, and supported by the research, made by women's group participants in Travers (1994) that,

one could frequently obtain more food for the same money at a store in a suburban vs. a low-income neighbourhood. Food pricing associated with zoning is impacted by the demographic and socioeconomic mix of the region or neighbourhood from which a particular store draws patrons (personal communication, Randy Sieben, IGA Manager, Oct 5, 1999). Other factors that have an impact on grocery prices include, but are not limited to, competition and market price fluctuations. The lack of difference in the cost of the ENFB found in this study may be due to the large number of competitively priced stores throughout the city.

Upon closer examination of trends in the data, two inner city stores had prices that were higher than other city stores of the same store type with the same neighbourhood income level (Table 9). In fact, these stores were the highest price for their respective store type and neighbourhood income level. Another interesting finding is that the average cost of groceries at the inner city stores is 104% of the average cost at all other stores (Table 12).

<div>TABLE 12</div> <div>ENFB Mean Monthly Cost for Inner City Stores</div>			
Store Location	average income level	3 member family	4 member family
inner city stores	low	\$ 322.00	\$ 479.44
All except inner city stores	low/ middle & mixed	\$ 308.51	\$ 458.98

4.2.3 Food Basket Cost by Store Type and Neighbourhood Income Level

When controlling for store type, some interesting trends in ENFB prices according to neighbourhood income level were observed (Table 13). The average price of the ENFB at large traditional stores in low-income areas was higher than stores in middle

income areas. This trend is consistent with the results found in previous research (Travers, 1994). However, this trend was unexpectedly reversed for small traditional stores. For both store types, statistical analyses (T-tests) revealed no statistically significant differences.

Table 13				
Food Basket Monthly Cost by Income Area Controlling for Store Type				
store type	N	average income level	3 member family	4 member family
			Mean \pm S.D.	Mean \pm S.D.
STS	5	low	\$ 313.49 \pm \$20.57	\$ 466.02 \pm \$30.50
STS	5	middle	\$ 324.26 \pm \$14.06	\$ 483.01 \pm \$21.73
STS	10	low vs. middle	p=.362	p=.335
LTS	5	low	\$ 314.41 \pm \$15.84	\$ 468.01 \pm \$24.54
LTS	5	middle	\$ 306.26 \pm \$12.12	\$ 456.10 \pm \$18.55
LTS	10	low vs. middle	p=.388	p=.412

Despite the small storeowners typically paying a higher cost for the same products as larger stores (personal communication, Randy Sieben, IGA Manager, Oct 5, 1999), they seemed to adjust their prices downward to accommodate their low-income consumers (Table 13). The LTS did not seem to adjust their price where low-income shoppers purchase their groceries. Perhaps the community based nature of the STS made them more sensitive to the consumers.

4.3 Cost of Living Compared to SFI

Standard Allowance is the amount allotted to Supports for Independence (SFI) recipients for all expenses except housing. This allowance is intended to be sufficient for food, clothing, household needs (including furniture and appliances), laundry, telephone, transportation and personal care items (National Council of Welfare, 2000). As demonstrated by Table 14, food costs alone account for the majority of the Standard Allowance leaving little for the remaining expenses. A meager \$93.14 and \$117.98 of the

monthly Standard Allowance remains for a family of 3 and 4 respectively to pay for everything except food and housing. The cost of bus passes, \$156 and \$208 for a 3 and 4 member family respectively (ESPC, 2000), alone exceeds the amount remaining. This assumption is based on the best case scenario that the cost of housing is not beyond the allotted housing allowance, which would reduce the amount available for food further.

Table 14		
ENFB Cost by Family Size Compared to SFI Standard Allowance		
30 Stores	ENFB Cost Mean \pm S.D.	SFI Standard Allowance
Family of 3	\$309.86 \pm 21.92	\$403.00
Family of 4	\$461.02 \pm 33.32	\$579.00

According to a direct relative approach undertaken by the Edmonton Social Planning Council to determine The Cost of Healthy Living (ESPC, 2000), the actual monthly cost of living for both reference families living on SFI exceeds their total income (Table 15). The Cost of Healthy Living includes the cost of the ENFB, The Cost of Healthy Eating.

Table 15			
Monthly Cost of Living Compared to SFI			
Family Size	Income (Net)	Total Expenses	Surplus (Deficit)
3	\$985.88	\$1414.14	(\$428.26)
4	\$1,183.67	\$1,727.18	(\$543.51)

(Source: ESPC, 2000)

4.4 Cost of Living Compared to Minimum Wage

The findings of the Edmonton Social Planning Council (ESPC, 2000) study, of which the food pricing survey was part, show that only a two-parent family with both parents working full-time (52 weeks per year at minimum wage (\$5.90/hour)) have an income that exceeds their total expenses (Table 16). This surplus is based on both parents working full-time, which may be difficult to maintain, receiving subsidized childcare and no addition unforeseen expenses.

Table 16 Monthly Cost of Living Compared to Minimum Wage			
Family Size	Income (Net)	Total Expenses	Surplus (Deficit)
3	\$1,209.60	\$1,592.14	(\$382.54)
4	\$2,147.97	\$1,937.85	\$210.12

(Source: ESPC, 2000)

5.0 Conclusions and Recommendations.

5.1 Conclusions

The objectives of this study have been met as follows:

- 1) a direct relative approach to measuring poverty was used to develop an Edmonton based Nutritious Food Basket (ENFB) that included 68 food items (Table 6)
- 2) the ENFB was used to determine the cost of healthy eating in Edmonton, Alberta, Canada for two reference families at 30 Edmonton grocery stores which were differentiated by average neighbourhood income and store type. The cost of the ENFB was not found to differ significantly by store type or neighbourhood income level however, a practical difference in cost was found. The cost of the ENFB in the inner city was found to be 4% more than in other areas of the city, but not statistically significant.
- 3) the cost of healthy eating in Edmonton was compared to minimum wage (Table 15) and Supports for Independence (welfare) (Table 14) in order to assess the adequacy of income for families to meet nutritional requirements. The total expenses exceeded the income for all families except two-parent families with both parents working full-time. Income from SFI was inadequate for both a 3-member and 4-member family to meet nutritional needs. A 3-member and 4-member family on SFI had a monthly deficit of \$428.26 and \$543.51 respectively (Table 14). In addition, the income for 3-member families working at minimum wage was inadequate to meet nutritional requirements. A 3-member family with one parent working full-time at minimum wage would have a monthly deficit of \$382.54 (Table 15). A dual-income family working full-time at minimum wage (\$5.90/hour) 52 weeks per year would have a

monthly income that exceeded expenses by \$210.12 (Table 15) allowing them to meet their nutritional needs.

5.2 Recommendations

5.2.1. Household Food Security and Nutrition Education.

Household food security is impacted by both individual and collective factors. One must have the necessary knowledge about nutritious food choices and budgeting to meet nutrient needs; however, it is important to remember that one needs sufficient income to obtain the appropriate food. Education is only useful in meeting basic food and nutrient needs if the food is accessible. Government assistance and minimum wage levels must be sufficient to meet basic needs, including but not limited to food. Currently, the government is in the process of developing a Market Basket Measure to ensure the costs of living (food, clothing, shelter and other expenses) are compared to available family income which reflects family size and considers geographic cost differences (Federal/Provincial/Territorial Working Group on Social Development Research and Information, 1998). The MBM or other such measures can act as a benchmark to determine the SFI income needed and the minimum wage required to meet needs in a socially acceptable manner.

5.2.2. Policy Making

5.2.2.1. Wages.

It is necessary to implement a minimum wage that would allow an individual or family to meet their basic needs in a socially acceptable manner. The Cost of Healthy Living Threshold and resulting Cost of Healthy Living (ESPC, 2000) is such a measure, which includes the ENFB, that determines the cost of purchasing goods and services in a

socially acceptable manner. Using the Cost of Healthy Living Threshold to determine the necessary minimum wage could go a long way to relieve the unnecessary reliance on the social support system for many of the working class. A sufficient minimum wage needs to be implemented and reviewed on a regularly scheduled basis in order to continue to meet basic needs.

5.2.2.2. Safety Nets.

Similar to a sufficient minimum wage, sufficient safety nets (SFI and other social assistance programs) need to be introduced to meet basic needs in a socially acceptable manner. These safety nets also need to be reviewed on a regular basis so they can continue to meet the needs. Government programs like SFI need to provide sufficient income. An inadequate support system merely perpetuates the problems of poverty and continuing the cycle.

The Cost of Healthy Living could be used as a tool to substantiate the need for a sufficient income. This cost could be utilized to advocate for the working-class poor and people on various social assistance programs. Sufficient income could improve the nutritional status and living conditions for people living in poverty.

5.3. Implications for Further Research

Results of this study reflect the food basket cost for Edmonton in spring of 1999. Additional baskets need to be developed and priced for other regions and times of year. A bottom-up approach rather than a top-down approach is recommended in order to incorporate regional variation in food choices and to meet social needs. A direct approach is preferable in order to ensure the nutritional needs can be met within the food budget.

Further research is required to determine if the Cost of Healthy Living and ENFB are sufficient to allow families to meet their needs in a socially acceptable manner when applied. It is also necessary to determine the cost of Healthy Living and the cost of the ENFB for other family sizes and compositions. The cost of the ENFB is sure to increase as the caloric needs increase with age.

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Appendix A

The Cornell/ Radimer Questionnaire to Estimate the Prevalence of Hunger and Food Insecurity

INSTRUCTIONS

The questionnaire is used to characterize each household as to whether it is:

- Household food secure
- Household food insecure
- Individual insecure
- Individual hunger, or
- Child hunger

The questionnaire has 13 items: eleven statements and two questions. Answers to the eleven statements are considered positive if they are “often true” or “sometimes true.” Answers to the two questions are considered positive if they are “yes.”

A household is:

1. Food secure if.....none of the answers to 1 to 11 are positive;
2. Food insecure if.....one or more of the items 1 to 11 are positive;
3. Individual insecure if.....one or more of the answers to items 6 to 11 are positive;
4. Individual hunger if.....one or more answers to items 6 to 8 are positive, and
 - 1) one or more answers to items 12 to 13 are positive, or
 - 2) one or more answers to items 9 and 10 are positive;
5. Child hunger if.....one or more answers to items 9 to 10 are positive.

QUESTIONNAIRE

Now I am going to read you a series of statements that people have made about their food situation. For the next eleven statements, tell me whether the statement is often true, sometimes true or never true for your household or the individuals in your household.

1. I worry whether my food will run out before I get money to buy more	<input type="radio"/> Often true <input type="radio"/> Sometimes true <input type="radio"/> Never true
2. I worry about whether the food that I can afford to buy for my household will be enough.	<input type="radio"/> Often true <input type="radio"/> Sometimes true <input type="radio"/> Never true
3. The food that I bought just didn't last, and I didn't have money to get more.	<input type="radio"/> Often true <input type="radio"/> Sometimes true <input type="radio"/> Never true
4. I ran out of the foods that I needed to put together a meal and I didn't have money to get more food.	<input type="radio"/> Often true <input type="radio"/> Sometimes true <input type="radio"/> Never true
5. We eat the same thing for several days in a row because we only have a few different kinds of food on hand and don't have money to buy more.	<input type="radio"/> Often true <input type="radio"/> Sometimes true <input type="radio"/> Never true
6. I am often hungry, but I don't eat because I can't afford enough food.	<input type="radio"/> Often true <input type="radio"/> Sometimes true <input type="radio"/> Never true
7. I eat less than I think I should because I don't have enough money for food.	<input type="radio"/> Often true <input type="radio"/> Sometimes true <input type="radio"/> Never true
8. I can't afford to eat properly.	<input type="radio"/> Often true <input type="radio"/> Sometimes true <input type="radio"/> Never true
9. My child(ren) is (are) not eating enough because I can't afford enough food.	<input type="radio"/> Often true <input type="radio"/> Sometimes true <input type="radio"/> Never true
10. I know my child(ren) is (are) hungry sometimes, but I just can't afford more food.	<input type="radio"/> Often true <input type="radio"/> Sometimes true <input type="radio"/> Never true
11. I cannot afford to feed my child(ren) a balanced meal because I can't afford that.	<input type="radio"/> Often true <input type="radio"/> Sometimes true <input type="radio"/> Never true
For the next two questions, please answer yes or no.	
12. Sometimes people lose weight because they don't have enough to eat. In the past year, did you lose weight because there wasn't enough food?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know
13. In the past year, have you had hunger pangs but couldn't eat because you couldn't afford food?	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't know

Participant	Food secure	Food insecure	Individual insecure	Individual hunger	Child hunger
1-5	**	---	---	---	---
6	**	---	---	---	N/A
7	**	---	---	---	N/A
8	**	---	---	---	N/A
9	**	---	---	---	N/A
10	**	---	---	---	N/A
11	**	---	---	---	N/A
12	**	---	---	---	---
13	**	---	---	---	---
14	**	---	---	---	---
15	**	---	---	---	N/A
16	**	---	---	---	N/A
17	---	**	---	---	---
18	---	**	**	---	N/A
19	---	**	---	---	N/A
20	---	**	---	---	---
21	---	**	**	**	**
22	---	**	**	**	**
23	---	**	**	---	N/A
24	---	**	**	**	**
25	---	**	---	---	N/A
26	---	**	**	**	**
27	---	**	---	---	---
28	---	**	---	---	---
29	---	**	**	---	N/A
Total	16/29	13/29	7/29	4/29	4/16

Legend:

- ** indicates that the item is valid for that household or individual as appropriate.
- indicates that the item is not valid for that household or individual as appropriate.
- N/A indicates that the item is not applicable, no children or adult children that are not residing in the household.

Appendix B

Guiding focus group questions

1. If you had adequate income to feed your family what would you and your family like to eat? For breakfast? For snack? For lunch? For supper? Throughout the day? In the evening?
2. (Probe if needed) What fruits and vegetables would you and your family like to eat? Milk products? Meats and alternatives? Breads cereals and grain products? Fats and oils? Other foods? Beverages?
3. (probe if needed) What would you like to have to add flavor to the food? Spreads? Sauces? Spices? Condiments?
4. (Probe if needed) What would a typical weekly menu include?
5. What would you include to allow social needs to be met? (What could you do without and still meet nutritional needs?)
6. Do you typically purchase store brands/ generic products or national brands? Why?
7. What size of products do you typically buy? Small/ individual? Large/ family? Bulk? Other?
8. Where do you do most of your grocery shopping? In your neighborhood? Out of your neighborhood?(why?)

Appendix C

INFORMATION LETTER

Title of the Project: The Cost of Eating in the City of Edmonton

Investigators: Tara M. Rankin
Graduate Student
Centre for Health Promotion Studies
University of Alberta
Phone: 492-4039

Kim Raine-Travers
Associate Professor
Centre for Health Promotion Studies
University of Alberta
Phone: 492-9415

Purpose: The information is being collected for use in a graduate thesis on the cost of healthy eating in the city of Edmonton. The purpose of the focus groups is to find out what is needed for people to meet their basic food needs and social food needs.

Background: People from all classes of society will be recruited to obtain their input. The reason for doing the research is to find out what people need and want to eat in order to develop a food basket. The basket will be used as a tool to help change assistance and wage levels.

Procedures: These people will be asked to give their opinion about what people need to eat to meet basic food needs and food needs to be active in society. The focus groups will be about 3 hours in length and people will be asked if they would like to come back for an additional 3 hour focus group. The groups will take place at The Inn on 7th (10001-107 Street) weekday evenings from 6:30-9:30 PM.

Benefits: The benefits of the research include, but are not limited to, idea sharing, giving input to create positive change and meeting people.

Risks: No potential known risks.

Confidentiality: All identifying will be removed from written and oral study information. Only the investigators will have access to personal information that will be secured in a locked cabinet. All information that can link people to the study will be destroyed after reports are written.

Freedom to withdraw: All study participants are free to withdraw from the study at any time without any result.

Additional contacts: Gerry Glassford
Phone: 492-4039

Appendix D

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CONSENT FORM

Part 1 (to be completed by the Principal Investigator):

Title of Project: Cost of Living in the City of Edmonton

Principal Investigator: Tara Rankin

Co-Investigator: Kim Raine-Travers
Associate Professor
Centre for Health Promotion Studies
University of Alberta
Phone 492-9415

Part 2 (to be completed by the research subject):

Do you understand that you have been asked to be in a research study?	Yes	No
Have you read and received a copy of the attached Information Sheet?	Yes	No
Do you understand the benefits and risks involved in taking part in this research study?	Yes	No
Have you had an opportunity to ask questions and discuss this study?	Yes	No
Do you understand that you are free to refuse to participate or withdraw from the study at any time? You do not have to give a reason.	Yes	No
Has the issue of confidentiality been explained to you? Do you understand who will have access to focus group transcripts?	Yes	No

This study was explained to me by: _____

I agree to take part in this study.

Signature of Research Participant

Date

Witness

Printed Name

Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

Signature of Investigator or Designee

Date

THE INFORMATION SHEET MUST BE ATTACHED TO THIS CONSENT
FORM AND A COPY GIVEN TO THE RESEARCH SUBJECT

Appendix E

FOOD PRICING SPREAD SHEET

Date: _____ **Store Name:** _____ **address:** _____

Food item	Type/ cut	Brand	Size (units)	Cost	Unit price
Condiments					
Baking powder	n/a		450 g	\$.	\$. /
Baking soda	n/a		1 kg	\$.	\$. /
Boullion, dry, beef or chicken	n/a		170 g	\$.	\$. /
Corn starch	n/a		500 g	\$.	\$. /
Honey	n/a		500 g	\$.	\$. /
Jelly, strawberry	n/a		750 ml	\$.	\$. /
Ketchup, heinz	n/a		1 l	\$.	\$. /
Lemon juice, concentrate	n/a		946 ml	\$.	\$. /
Mayonnaise	n/a		950 ml	\$.	\$. /
Mustard	n/a		500 ml	\$.	\$. /
Pepper	n/a		145 g	\$.	\$. /
Pickles	n/a		1 l	\$.	\$. /
Salt	n/a		1 kg	\$.	\$. /
Soup, dehydrated (ex. Onion)	n/a		80 g	\$.	\$. /
Soy sauce	n/a		500 ml	\$.	\$. /
Syrup, pancake	n/a		750 ml	\$.	\$. /
Vanilla extract, artificial	n/a		250 ml	\$.	\$. /
Vinegar	n/a		4 l	\$.	\$. /
Worstchestershire	n/a		284 ml	\$.	\$. /
Other foods	Type/ cut	Brand	Size (units)	Cost	Unit price
Cocoa powder, unsweetened (baking)	n/a		250 g	\$.	\$. /
Coffee, regular, ground	n/a		300 g	\$.	\$. /
Sugar, granular	n/a		4 kg	\$.	\$. /
Sugar, yellow or brown	n/a		2 kg	\$.	\$. /
Tea	n/a		273 g	\$.	\$. /

Fruits & vegetables	Type/ cut	Brand	Size (units)	Cost	Unit price
Apple, variety			1 kg	\$.	\$. /
Banana	n/a		1 kg	\$.	\$. /
Broccoli	n/a		1 kg	\$.	\$. /
Carrots	n/a		2.27 kg	\$.	\$. /
Celery	n/a		1 kg	\$.	\$. /
Cucumber			1 kg	\$.	\$. /
Lettuce, variety			1 head	\$.	\$. /
Onion			4.54 kg	\$.	\$. /
Orange			1.81 kg	\$.	\$. /
Potatoes			9.06 kg	\$.	\$. /
Processed fruits & vegetables	Type/ cut	Brand	Size (units)	Cost	Unit price
Corn, canned, whole kernel	n/a		341 ml		
Fruit juice,tetra, orange, unsweetened	n/a		1 l	\$.	\$. /
Mushrooms, canned	n/a		284 ml	\$.	\$. /
Pinneapple, unsweetened, canned	n/a		540 ml	\$.	\$. /
Raisins, seedless	n/a		750 g	\$.	\$. /
Sauce, tomato, hunts	n/a		398 ml	\$.	\$. /
Tomatoes, whole or crushed, canned	n/a		540 ml	\$.	\$. /
Vegetables, mixed, frozen	n/a		2 kg	\$.	\$. /
Breads & cereals (grains)	Type/ cut	Brand	Size (units)	Cost	Unit price
Bread, sliced, whole wheat	% whole		570 g	\$.	\$. /
Cereal, cherrios, general mills	n/a		575 g	\$.	\$. /
Cracker, soda, unsalted	n/a		450 g	\$.	\$. /
Flour, all purpose, national brand	n/a		10 kg	\$.	\$. /
Macaroni dinner, kraft brand	n/a		225 g	\$.	\$. /
Pasta, spagetti, rotini, etc. (one variety)			200 g	\$.	\$. /
Popcorn, kernel	n/a		1 kg	\$.	\$. /
Rice, white	n/a		2 kg	\$.	\$. /
Soup, canned, cream of mushroom	n/a		284 ml	\$.	\$. /

Milk products		Type/ cut	Brand	Size (units)	Cost	Unit price
Cheese, cheddar, regular, 31% m.f.		n/a		600 g	\$.	\$. /
Ice cream				4 l	\$.	\$. /
Milk, 2%, fluid		n/a		4 l	\$.	\$. /
Fats & oils		Type/ cut	Brand	Size (units)	Cost	Unit price
Margarine		n/a		454 g	\$.	\$. /
Oil, vegetable				1 l	\$.	\$. /
Salad dressing, thousand island, bottled		n/a		485 ml	\$.	\$. /
Vegetable shortening		n/a		454 g	\$.	\$. /
Meats & alternatives		Type/ cut	Brand	Size (units)	Cost	Unit price
Beans with pork, baked, canned		n/a		398 ml	\$.	\$. /
Beef, ground, regular		n/a		1 kg	\$.	\$. /
Eggs, large		n/a		1 dozen	\$.	\$. /
Kidney beans, canned		n/a		398 ml	\$.	\$. /
Peanut butter, processed		n/a		1 kg	\$.	\$. /
Peanuts, blanched, unsalted		n/a		400 g	\$.	\$. /
Poultry, whole or pieces				1 kg	\$.	\$. /
Roast beef				1 kg	\$.	\$. /
Tuna in water, canned		n/a		170 g	\$.	\$. /
Weiners, national brand, beef & / or pork		n/a		450 g	\$.	\$. /

Appendix F

FOOD PRICE SURVEY DIRECTIONS

Recommended Supplies-

- 2 pencils -eraser -calculator
- clipboard -scrap paper - ruler

Required Supplies-food costing charts -food costing directions

General Directions

- Familiarize yourself with the pricing chart and ensure all 3 pages are completed.
- **Record** the **date** the pricing is done on the top of page 1.

Note: please complete the pricing on a day between Saturday April 17 & Friday April 30 inclusive.

- **allow approximately 2 hours** to complete in store pricing **FOR EACH STORE**.
- ensure a price is recorded for each item. Store customer service or staff can be helpful to find items, if needed, when you are unable to find them.
- upon completing the food costing please return call Tara at ###-####.

Food Costing Directions

- for each item **record the lowest price** for the specified size & specified brand, if applicable.
sample calculation to determine lowest price

macaroni	\$3.00 for 900 grams	$\$3.00/900 \text{ g} = \$3.33/100 \text{ g}$
bulk macaroni	\$2.9 for 100 grams	$\$2.9/100 \text{ g}$

The bulk macaroni is the best buy.

Note: if you find a **size** that is a **lower cost** than the specified size please **record** the **price, brand/ type and size in addition to the specified size** (if available).

- if the **specified size** is **not available** record the size, price and brand/ type of the nearest size.
- ensure you **check all locations** in each store for the item. For example, bread is often located in multiple store locations.
- please **circle** the **brand** where requested. **NAT.** is the abbreviation used for national brands and **STORE** is used for generic or store brands. If you are unsure if the brand is a national or store/generic brand record the brand next to the food item.
- **coupons, sales or discounts** that are available in store may be used when **determining the lowest price**. Discounts offered for purchasing multiple items **should not** be used when determining price. For example, a discount may be offered for purchasing 6 cans of tomato sauce and this should not be used in calculating the lowest priced item. The Safeway and Save-on-foods discount cards can be used when determining the lowest price.

Thank you for your assistance!

APPENDIX G

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Weekly Report						
Father						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
Day 1						
<i>breakfast</i>						
	[5 servings] Homemade Pancakes	512.81	17.14	15.74	72.93	
	2 1/2 tablespoons (T) sweets, syrups, table blends, pancake	140.93	0.00	0.00	37.17	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40	
	1 cup (c) orange juice, chilled	109.56	0.67	1.99	25.05	
	Meal Totals	959.57	22.95	26.10	166.26	
<i>lunch</i>						
	2 tablespoons (T) peanut butter	190.11	16.12	7.76	6.97	
	2 tablespoons (T) jelly	102.98	0.04	0.15	26.90	
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46	
	4 [1 slice] brown bread	278.96	4.76	11.00	52.28	
	3 ounces (oz) cheddar	342.39	28.19	21.18	1.09	
	6 [1 saltine] crackers	78.12	2.12	1.66	12.87	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	Meal Totals	1,182.31	56.27	50.65	129.28	
<i>dinner</i>						
	60 grams (g) spaghetti	222.60	0.95	7.67	44.81	
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14	
	1 cup (c) carrot	80.99	0.36	1.94	19.10	
	[1 serving] Homemade meat sauce	196.15	13.88	12.82	4.78	
	1 cup (c) coffee	4.74	0.00	0.24	0.95	
	1/8 teaspoon (t) pepper	0.68	0.01	0.03	0.17	
	Meal Totals	644.64	17.58	28.20	95.95	
Day Totals		2,786.52	96.80	104.95	391.49	

Weekly Report						
Father						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
<i>Day 2</i>						
<i>breakfast</i>						
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	2 tablespoons (T) sweets, syrups, table blends, pancake	112.74	0.00	0.00	29.74	
	[4 servings] Homemade french toast	493.10	14.47	25.25	64.23	
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40	
	<i>Meal Totals</i>	<i>802.11</i>	<i>19.61</i>	<i>33.62</i>	<i>125.08</i>	
<i>lunch</i>						
	2 [1 spear] broccoli	51.58	0.64	5.49	9.65	
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53	
	2/5 [1 22.5x4.5cm dm] cucumber	17.44	0.17	0.93	3.70	
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14	
	2 tablespoons (T) thousand island dressing	124.79	10.98	0.44	5.41	
	1 tablespoon (T) ketchup	15.60	0.05	0.23	4.09	
	1 teaspoon (t) mustard	3.82	0.22	0.24	0.33	
	1 [1 9.5 cm] dill pickle	11.70	0.12	0.40	2.68	
	1 [1 wiener] hotdog	109.13	8.77	4.57	2.21	
	<i>Meal Totals</i>	<i>670.79</i>	<i>28.41</i>	<i>28.09</i>	<i>83.75</i>	

Weekly Report

Father

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 2</i>					
<i>dinner</i>					
	6 [1 spear] broccoli	154.74	1.93	16.47	28.96
	30 grams (g) cheddar	120.77	9.94	7.47	0.38
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1/2 [100 ml chopped] onion	11.56	0.05	0.35	2.63
	4 [1 20cmx2.5cm dm] carrot	123.23	0.54	2.95	29.06
	100 grams (g) beef, hip, rump roast, lean+fat, 1/4 trim, roasted	216.86	11.04	27.45	0.00
	1/8 teaspoon (t) pepper	0.68	0.01	0.03	0.17
	[2 servings] Homemade Beef gravy	99.79	5.43	4.00	8.65
	2 [potato 12x6dm->] baked potato	440.36	0.40	9.29	101.93
	1 cup (c) coffee	4.74	0.00	0.24	0.95
	<i>Meal Totals</i>	<i>1,293.93</i>	<i>34.02</i>	<i>76.38</i>	<i>184.44</i>
<i>Day Totals</i>		<i>2,766.83</i>	<i>82.04</i>	<i>138.09</i>	<i>393.27</i>

Weekly Report

Father

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 3</i>					
<i>breakfast</i>					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 tablespoon (T) honey	75.87	0.00	0.07	20.57
	4 [1 slice] brown toast	277.00	4.80	10.90	51.70
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46
	1 tablespoon (T) peanut butter	95.06	8.06	3.88	3.48
	1 cup (c) orange juice, chilled	109.56	0.67	1.99	25.05
	<i>Meal Totals</i>	747.24	18.57	25.74	129.97
<i>lunch</i>					
	1 cup (c) macaroni & cheese	653.02	22.48	20.35	92.75
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53
	2/5 [1 22.5x4.5cm dm] cucumber	17.44	0.17	0.93	3.70
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	2 [1 spear] broccoli	51.58	0.64	5.49	9.65
	1/2 tablespoon (T) thousand island dressing	31.20	2.74	0.11	1.35
	1/8 teaspoon (t) pepper	0.68	0.01	0.03	0.17
	<i>Meal Totals</i>	1,011.80	31.45	36.76	153.26
<i>dinner</i>					
	[1 servings] Homemade Chili	0.81	0.01	0.03	0.21
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30
	2 [1 spear] broccoli	51.58	0.64	5.49	9.65
	2 teaspoons (t) margarine, tub, unspecified vegetable oils	67.36	7.56	0.08	0.05
	1 cup (c) coffee	4.74	0.00	0.24	0.95
	<i>Meal Totals</i>	399.61	15.40	20.15	52.01
<i>Day Totals</i>		2,158.65	65.42	82.65	335.24

Weekly Report						
Father						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
<i>Day 4</i>						
<i>breakfast</i>						
	3 [1 slice] brown toast	207.75	3.60	8.17	38.78	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	2/3 tablespoon (T) jelly	34.50	0.01	0.05	9.01	
	2 [100 ml tidbits] canned pineapple	126.80	0.17	0.89	33.18	
	1 tablespoon (T) peanut butter	95.06	8.06	3.88	3.48	
	1 cup (c) orange juice, chilled	109.56	0.67	1.99	25.05	
	<i>Meal Totals</i>	<i>694.87</i>	<i>17.19</i>	<i>23.11</i>	<i>121.21</i>	
<i>lunch</i>						
	[1 servings] Homemade Chili	131.47	0.81	2.39	30.06	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14	
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30	
	2 [1 spear] broccoli	51.58	0.64	5.49	9.65	
	[1 serving] Wacky Cake	138.88	5.31	1.41	22.07	
	2 teaspoons (t) margarine, tub, unspecified vegetable oils	67.36	7.56	0.08	0.05	
	<i>Meal Totals</i>	<i>664.41</i>	<i>21.51</i>	<i>23.68</i>	<i>102.98</i>	

Weekly Report						
Father						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
Day 4 dinner						
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	2 [100 ml tidbits] canned pineapple	126.80	0.17	0.89	33.18	
	8 [1 leaf] iceberg lettuce	19.76	0.29	1.54	3.18	
	2/5 [1 20cmx2.5cm dm] carrot	12.32	0.05	0.30	2.91	
	2/5 [1 22.5x4.5cm dm] cucumber	17.44	0.17	0.93	3.70	
	1 1/3 tablespoons (T) thousand island dressing	83.61	7.36	0.29	3.63	
	[1 serving] Homemade sweet and sour sauce	87.05	0.15	0.94	22.69	
	1/8 teaspoon (t) pepper	0.68	0.01	0.03	0.17	
	1 tablespoon (T) peanuts, all types, boiled	12.53	0.87	0.53	0.84	
	1 3/4 cups (c) grain, rice, white, long-grain, regular, cooked	466.37	1.00	9.65	101.06	
	1 3/4 teaspoons (t) sauces, prepared, soy	6.68	0.00	0.90	0.87	
	50 grams (g) chicken, broiler, back, meat+skin, water chill, raw	95.58	8.69	4.03	0.00	
	1 cup (c) coffee	4.74	0.00	0.24	0.95	
	Meal Totals	1,054.76	23.44	28.40	184.89	
Day Totals		2,414.04	62.14	75.19	409.08	

Weekly Report						
Father						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
<i>Day 5</i>						
<i>breakfast</i>						
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	2 cups (c) cheerios	185.20	3.48	6.05	33.84	
	6 tablespoons (T) raisin	187.02	0.28	2.10	49.24	
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46	
	1 [1 slice] brown toast	69.25	1.20	2.72	12.93	
	1 tablespoon (T) peanut butter	95.06	8.06	3.88	3.48	
	<i>Meal Totals</i>	<i>726.28</i>	<i>18.06</i>	<i>23.65</i>	<i>128.66</i>	
<i>lunch</i>						
	4 [1 slice] brown bread	278.96	4.76	11.00	52.28	
	4 ounces (oz) tuna	148.55	0.57	33.54	0.00	
	2 tablespoons (T) mayonnaise	201.47	22.13	0.30	0.30	
	2 [1 leaf] iceberg lettuce	4.94	0.07	0.38	0.79	
	1 [1 fruit 6.7dm] orange	44.95	0.11	0.90	11.24	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40	
	1/2 teaspoon (t) mustard	1.91	0.11	0.12	0.16	
	1/8 teaspoon (t) pepper	0.68	0.01	0.03	0.17	
	1 tablespoon (T) peanuts, all types, boiled	12.53	0.87	0.53	0.84	
	1/2 teaspoon (t) lemon juice, canned or bottled	0.53	0.01	0.01	0.16	
	<i>Meal Totals</i>	<i>890.79</i>	<i>33.78</i>	<i>55.18</i>	<i>97.05</i>	

Weekly Report						
Father						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
<i>Day 5</i>						
<i>dinner</i>						
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53	
	2 [1 spear] broccoli	51.58	0.64	5.49	9.65	
	1 [100 ml chopped] onion	23.13	0.10	0.71	5.25	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	1 cup (c) ice cream	265.32	14.52	4.62	31.15	
	1/8 teaspoon (t) pepper	0.68	0.01	0.03	0.17	
	1 1/2 cups (c) grain, rice, white, long-grain, regular, cooked	399.75	0.86	8.27	86.62	
	100 grams (g) beef, hip, rump roast, lean+fat, 1/4 trim, roasted	216.86	11.04	27.45	0.00	
	1 1/2 teaspoons (t) sauces, prepared, soy	5.73	0.00	0.77	0.74	
	3/4 tablespoon (T) margarine, tub, unspecified vegetable oils	76.29	8.56	0.09	0.05	
	1 cup (c) coffee	4.74	0.00	0.24	0.95	
	<i>Meal Totals</i>	<i>1,226.89</i>	<i>40.68</i>	<i>57.28</i>	<i>160.82</i>	
<i>Day Totals</i>		<i>2,843.96</i>	<i>92.52</i>	<i>136.11</i>	<i>386.53</i>	

Weekly Report						
Father						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
<i>Day 6</i>						
<i>breakfast</i>						
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	3 [1 slice] brown toast	207.75	3.60	8.17	38.78	
	1 tablespoon (T) peanut butter	95.06	8.06	3.88	3.48	
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40	
	1/2 tablespoon (T) brown sugar	25.87	0.00	0.00	6.70	
	1 1/2 cups (c) orange juice, chilled	164.34	1.01	2.99	37.57	
	Meal Totals	689.29	17.81	23.41	117.64	
<i>lunch</i>						
	1 1/2 cups (c) pork and beans	402.27	5.88	19.70	75.82	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14	
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53	
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30	
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40	
	Meal Totals	814.07	13.80	35.73	150.90	

Weekly Report						
Father						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
Day 6						
dinner						
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	[2 servings] Homemade meat sauce	294.22	20.83	19.23	7.16	
	3 [1 slice] brown toast	207.75	3.60	8.17	38.78	
	1 1/2 ounces (oz) cheddar	171.20	14.09	10.59	0.54	
	8 [1 leaf] iceberg lettuce	19.76	0.29	1.54	3.18	
	2/5 [1 20cmx2.5cm dm] carrot	12.32	0.05	0.30	2.91	
	2/5 [1 22.5x4.5cm dm] cucumber	17.44	0.17	0.93	3.70	
	1 tablespoon (T) thousand island dressing	62.40	5.49	0.22	2.71	
	1 tablespoon (T) peanuts, all types, boiled	12.53	0.87	0.53	0.84	
	1 tablespoon (T) margarine, tub, unspecified vegetable oils	101.72	11.42	0.11	0.07	
	1 1/4 tablespoons (T) popcorn: unpopped	58.93	0.77	1.94	11.74	
	1 cup (c) coffee	4.74	0.00	0.24	0.95	
	Meal Totals	1,084.21	62.26	51.93	84.29	
Day Totals		2,587.57	93.87	111.07	352.83	

Weekly Report						
Father						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
Day 7						
breakfast						
	2 [1 large egg] poached egg	149.00	9.98	12.44	1.22	
	3 [1 slice] brown toast	207.75	3.60	8.17	38.78	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	1 tablespoon (T) jelly	51.49	0.02	0.08	13.45	
	1 [1 fruit 6.7dm] orange	44.95	0.11	0.90	11.24	
	1 tablespoon (T) peanut butter	95.06	8.06	3.88	3.48	
	1 1/2 [100 ml tidbits] canned pineapple	95.10	0.13	0.67	24.88	
	1/8 teaspoon (t) pepper	0.68	0.01	0.03	0.17	
	2 teaspoons (t) margarine, tub, unspecified vegetable oils	67.36	7.56	0.08	0.05	
	Meal Totals	832.59	34.15	34.38	104.98	
lunch						
	60 grams (g) spaghetti	222.60	0.95	7.67	44.81	
	3 [1 slice] brown bread	209.22	3.57	8.25	39.21	
	1 cup (c) carrot	80.99	0.36	1.94	19.10	
	[2 servings] Homemade meat sauce	294.22	20.83	19.23	7.16	
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46	
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30	
	2/5 [1 22.5x4.5cm dm] cucumber	17.44	0.17	0.93	3.70	
	1 tablespoon (T) thousand island dressing	62.40	5.49	0.22	2.71	
	1 tablespoon (T) peanuts, all types, boiled	12.53	0.87	0.53	0.84	
	1/8 teaspoon (t) pepper	0.68	0.01	0.03	0.17	
	Meal Totals	983.07	32.74	40.25	138.46	

Weekly Report

Father

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 7</i>					
<i>dinner</i>					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	[1 serving] Wacky Cake	138.88	5.31	1.41	22.07
	1 1/3 cups (c) mixed vegetables	143.89	0.37	6.97	31.92
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	[2 servings] No peak chicken casserole	316.56	13.54	10.48	37.78
	1/8 teaspoon (t) pepper	0.68	0.01	0.03	0.17
	2 teaspoons (t) margarine, tub, unspecified vegetable oils	67.36	7.56	0.08	0.05
	1 cup (c) coffee	4.74	0.00	0.24	0.95
	<i>Meal Totals</i>	<i>868.38</i>	<i>31.93</i>	<i>27.58</i>	<i>124.05</i>
<i>Day Totals</i>		<i>2,684.04</i>	<i>98.82</i>	<i>102.21</i>	<i>367.49</i>
<i>Grand Total</i>		<i>18,241.61</i>	<i>591.61</i>	<i>750.27</i>	<i>2,635.93</i>

Weekly Report						
Mother						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
Day 1						
<i>breakfast</i>						
	[3 servings] Homemade Pancakes	307.69	10.28	9.44	43.76	
	1 1/2 tablespoons (T) sweets, syrups, table blends, pancake	84.56	0.00	0.00	22.30	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	1 cup (c) orange juice, chilled	109.56	0.67	1.99	25.05	
	<i>Meal Totals</i>	623.01	15.63	19.56	102.82	
<i>lunch</i>						
	1 tablespoon (T) peanut butter	95.06	8.06	3.88	3.48	
	1 tablespoon (T) jelly	51.49	0.02	0.08	13.45	
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46	
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14	
	2 ounces (oz) cheddar	228.26	18.79	14.12	0.73	
	4 [1 saltine] crackers	52.08	1.42	1.10	8.58	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	<i>Meal Totals</i>	756.12	35.71	33.58	81.55	
<i>dinner</i>						
	60 grams (g) spaghetti	222.60	0.95	7.67	44.81	
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07	
	1/2 cup (c) carrot	40.49	0.18	0.97	9.55	
	[2 servings] Homemade meat sauce	294.22	20.83	19.23	7.16	
	1 cup (c) tea	2.37	0.00	0.00	0.71	
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18	
	<i>Meal Totals</i>	630.12	23.16	30.65	75.48	
<i>Day Totals</i>		2,009.25	74.50	83.79	259.85	

Weekly Report

Mother

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
Day 2					
breakfast					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	[3 servings] Homemade french toast	369.83	10.86	18.94	48.17
	1 tablespoon (T) brown sugar	51.74	0.00	0.00	13.39
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	1 tablespoon (T) lemon juice, canned or bottled	3.21	0.04	0.06	0.99
	Meal Totals	621.05	16.04	27.37	93.66
lunch					
	1 [1 spear] broccoli	25.79	0.32	2.74	4.83
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53
	2/5 [1 22.5x4.5cm dm] cucumber	17.44	0.17	0.93	3.70
	1 [100 ml diced] celery	7.22	0.06	0.34	1.65
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07
	1 tablespoon (T) thousand island dressing	62.40	5.49	0.22	2.71
	1/2 tablespoon (T) ketchup	7.80	0.03	0.11	2.05
	1/2 teaspoon (t) mustard	1.91	0.11	0.12	0.16
	1 [1 wiener] hotdog	109.13	8.77	4.57	2.21
	1 [1 9.5 cm] dill pickle	11.70	0.12	0.40	2.68
	Meal Totals	495.94	21.21	21.79	59.30

Weekly Report

Mother

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 2 dinner</i>					
	3 [1 spear] broccoli	77.37	0.97	8.23	14.48
	15 grams (g) cheddar	60.39	4.97	3.73	0.19
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1/4 [100 ml chopped] onion	5.78	0.02	0.18	1.31
	1 1/2 [1 20cmx2.5cm dm] carrot	46.21	0.20	1.11	10.90
	50 grams (g) beef, hip, rump roast, lean+fat, 1/4 trim. roasted	108.43	5.52	13.72	0.00
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18
	[1 servings] Homemade Beef gravy	24.95	1.36	1.00	2.16
	1 [potato 12x6dm->] baked potato	220.18	0.20	4.65	50.96
	1 cup (c) tea	2.37	0.00	0.00	0.71
	<i>Meal Totals</i>	667.58	17.93	40.78	92.60
<i>Day Totals</i>		1,784.57	55.18	89.94	245.56

Weekly Report

Mother

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
Day 3					
breakfast					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1/2 tablespoon (T) honey	37.94	0.00	0.04	10.28
	2 [1 slice] brown toast	138.50	2.40	5.45	25.85
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46
	1/2 tablespoon (T) brown sugar	25.87	0.00	0.00	6.70
	Meal Totals	392.06	7.44	14.39	72.00
lunch					
	3/4 cup (c) macaroni & cheese	489.76	16.86	15.26	69.56
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53
	2/5 [1 22.5x4.5cm dm] cucumber	17.44	0.17	0.93	3.70
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18
	Meal Totals	765.78	22.45	26.07	119.08
dinner					
	[1 serving] Homemade Chili	393.90	21.50	24.30	27.40
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30
	2 [1 spear] broccoli	51.58	0.64	5.49	9.65
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18
	1 teaspoon (t) margarine, tub, unspecified vegetable oils	33.68	3.78	0.04	0.02
	1 cup (c) tea	2.37	0.00	0.00	0.71
	Meal Totals	687.61	31.93	41.42	66.04
Day Totals		1,845.45	61.82	81.88	257.12

Weekly Report

Mother

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 4</i>					
<i>breakfast</i>					
	3 [1 slice] brown toast	207.75	3.60	8.17	38.78
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2 teaspoons (t) jelly	34.09	0.01	0.05	8.91
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	1/4 tablespoon (T) brown sugar	12.94	0.00	0.00	3.35
	1/2 tablespoon (T) peanut butter	47.53	4.03	1.94	1.74
	1 cup (c) orange juice, chilled	109.56	0.67	1.99	25.05
	Meal Totals	608.14	13.45	20.52	108.94
<i>lunch</i>					
	[1 serving] Homemade Chili	109.56	0.67	1.99	25.05
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07
	1 [100 ml diced] celery	7.22	0.06	0.34	1.65
	1 [1 spear] broccoli	25.79	0.32	2.74	4.83
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18
	1 teaspoon (t) margarine, tub, unspecified vegetable oils	33.68	3.78	0.04	0.02
	Meal Totals	367.89	10.71	16.02	56.51

Weekly Report

Mother

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 4 dinner</i>					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2 [100 ml tidbits] canned pineapple	126.80	0.17	0.89	33.18
	4 [1 leaf] iceberg lettuce	9.88	0.14	0.77	1.59
	1/5 [1 20cmx2.5cm dm] carrot	6.16	0.03	0.15	1.45
	1/5 [1 22.5x4.5cm dm] cucumber	8.72	0.09	0.46	1.85
	2/3 tablespoon (T) thousand island dressing	41.81	3.68	0.15	1.81
	[1 servings] Homemade sweet and sour sauce	43.52	0.07	0.47	11.35
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18
	1/4 tablespoon (T) peanuts, all types, boiled	3.13	0.22	0.13	0.21
	1 cup (c) grain, rice, white, long-grain, regular, cooked	266.50	0.57	5.51	57.75
	1/2 teaspoon (t) sauces, prepared, soy	1.91	0.00	0.26	0.25
	50 grams (g) chicken, broiler, back, meat+skin, water chill, raw	95.58	8.69	4.03	0.00
	1 cup (c) tea	2.37	0.00	0.00	0.71
	<i>Meal Totals</i>	<i>728.28</i>	<i>18.35</i>	<i>20.98</i>	<i>122.04</i>
<i>Day Totals</i>		<i>1,704.31</i>	<i>42.51</i>	<i>57.52</i>	<i>287.49</i>

Weekly Report						
Mother						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
Day 5						
breakfast						
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	3/4 cup (c) cheerios	69.45	1.30	2.27	12.69	
	4 tablespoons (T) raisin	124.68	0.19	1.40	32.83	
	1 [fruit 22x3 6dm] banana	68.55	0.36	0.77	17.46	
	1 [1 slice] brown toast	69.25	1.20	2.72	12.93	
	1 tablespoon (T) peanut butter	95.06	8.06	3.88	3.48	
	1 cup (c) orange juice, chilled	109.56	0.67	1.99	25.05	
	Meal Totals	657.75	16.46	21.16	116.15	
lunch						
	3 [1 slice] brown bread	209.22	3.57	8.25	39.21	
	4 1/2 ounces (oz) tuna	167.12	0.64	37.74	0.00	
	2 tablespoons (T) mayonnaise	201.47	22.13	0.30	0.30	
	1 1/2 [1 leaf] iceberg lettuce	3.71	0.05	0.29	0.60	
	1 [1 fruit 6.7dm] orange	44.95	0.11	0.90	11.24	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	1/8 teaspoon (t) mustard	0.48	0.03	0.03	0.04	
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18	
	1/4 tablespoon (T) peanuts, all types, boiled	3.13	0.22	0.13	0.21	
	1/2 teaspoon (t) lemon juice, canned or bottled	0.53	0.01	0.01	0.16	
	Meal Totals	752.51	31.45	55.81	63.65	

Weekly Report						
Mother						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
Day 5						
<i>dinner</i>						
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53	
	1 [1 spear] broccoli	25.79	0.32	2.74	4.83	
	1/2 [100 ml chopped] onion	11.56	0.05	0.35	2.63	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	2/3 cup (c) ice cream	177.76	9.73	3.10	20.87	
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18	
	1/2 teaspoon (t) sauces, prepared, soy	1.91	0.00	0.26	0.25	
	3/4 cup (c) grain, rice, white, long-grain, regular, cooked	199.87	0.43	4.14	43.31	
	70 grams (g) beef, hip, rump roast, lean+fat, 1/4 trim, roasted	151.80	7.73	19.21	0.00	
	1 cup (c) tea	2.37	0.00	0.00	0.71	
	Meal Totals	754.57	23.22	39.44	99.02	
Day Totals		2,164.83	71.13	116.41	278.82	

Weekly Report
Mother

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 6</i>					
<i>breakfast</i>					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2 [1 slice] brown toast	138.50	2.40	5.45	25.85
	1 tablespoon (T) peanut butter	95.06	8.06	3.88	3.48
	1 cup (c) orange juice, chilled	109.56	0.67	1.99	25.05
	<i>Meal Totals</i>	<i>464.32</i>	<i>15.81</i>	<i>19.45</i>	<i>66.09</i>
<i>lunch</i>					
	2/3 cup (c) pork and beans	178.79	2.61	8.75	33.70
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	1 teaspoon (t) margarine, tub, unspecified vegetable oils	33.68	3.78	0.04	0.02
	<i>Meal Totals</i>	<i>554.53</i>	<i>13.12</i>	<i>22.07</i>	<i>95.73</i>

Weekly Report

Mother

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 6</i>					
<i>dinner</i>					
	1/2 cup (c) 2% milk	60.60	2.34	4.06	5.86
	[2 servings] Homemade meat sauce	392.30	27.77	25.64	9.55
	2 [1 slice] brown toast	138.50	2.40	5.45	25.85
	2 ounces (oz) cheddar	228.26	18.79	14.12	0.73
	4 [1 leaf] iceberg lettuce	9.88	0.14	0.77	1.59
	1/5 [1 20cmx2.5cm dm] carrot	6.16	0.03	0.15	1.45
	1/5 [1 22.5x4.5cm dm] cucumber	8.72	0.09	0.46	1.85
	3/4 tablespoon (T) thousand island dressing	46.80	4.12	0.16	2.03
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18
	1/4 tablespoon (T) peanuts, all types, boiled	3.13	0.22	0.13	0.21
	1 cup (c) tea	2.37	0.00	0.00	0.71
	<i>Meal Totals</i>	<i>897.42</i>	<i>55.91</i>	<i>50.97</i>	<i>50.01</i>
<i>Day Totals</i>		<i>1,916.27</i>	<i>84.84</i>	<i>92.49</i>	<i>211.83</i>

Weekly Report						
Mother						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
<i>Day 7</i>						
<i>breakfast</i>						
	2 [1 large egg] poached egg	149.00	9.98	12.44	1.22	
	3 [1 slice] brown toast	207.75	3.60	8.17	38.78	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	1 tablespoon (T) jelly	51.49	0.02	0.08	13.45	
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18	
	3/4 teaspoon (T) peanut butter	71.29	6.04	2.91	2.61	
	2 teaspoons (t) margarine, tub, unspecified vegetable oils	67.36	7.56	0.08	0.05	
	1 [1 fruit 6.7dm] orange	44.95	0.11	0.90	11.24	
	Meal Totals	713.74	32.00	32.74	79.24	
<i>lunch</i>						
	60 grams (g) spaghetti	222.60	0.95	7.67	44.81	
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14	
	1/2 cup (c) carrot	40.49	0.18	0.97	9.55	
	[2 servings] Homemade meat sauce	294.22	20.83	19.23	7.16	
	1 [fruit 22x3 6dm] banana	68.55	0.36	0.77	17.46	
	1 [100 ml diced] celery	7.22	0.06	0.34	1.65	
	1/5 [1 22.5x4.5cm dm] cucumber	8.72	0.09	0.46	1.85	
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18	
	Meal Totals	781.98	24.86	34.97	108.80	

Weekly Report						
Mother						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
<i>Day 7</i>						
<i>dinner</i>						
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	[1 serving] Wacky Cake	138.88	5.31	1.41	22.07	
	1 cup (c) mixed vegetables	107.38	0.27	5.21	23.82	
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40	
	[1 serving] No peak chicken casserole	211.04	9.03	6.98	25.19	
	1 cup (c) tea	2.37	0.00	0.00	0.71	
	<i>Meal Totals</i>	<i>655.94</i>	<i>19.75</i>	<i>21.97</i>	<i>102.90</i>	
<i>Day Totals</i>		<i>2,151.66</i>	<i>76.61</i>	<i>89.68</i>	<i>290.94</i>	
<i>Grand Total</i>		<i>13,576.34</i>	<i>466.59</i>	<i>611.71</i>	<i>1,831.61</i>	

Weekly Report						
Son						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
Day 1						
<i>breakfast</i>						
	[4 servings] Homemade Pancakes					
	1 1/2 tablespoons (T) sweets, syrups, table blends, pancake	410.25	13.71	12.59	58.34	
	1 cup (c) 2% milk	84.56	0.00	0.00	22.30	
	1 cup (c) orange juice, chilled	121.20	4.68	8.13	11.71	
	<i>Meal Totals</i>	109.56	0.67	1.99	25.05	
		725.57	19.06	22.71	117.40	
<i>lunch</i>						
	1 1/2 tablespoons (T) peanut butter	142.59	12.09	5.82	5.23	
	1 1/2 tablespoons (T) jelly	77.23	0.03	0.11	20.18	
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46	
	3 [1 slice] brown bread	209.22	3.57	8.25	39.21	
	2 ounces (oz) cheddar	228.26	18.79	14.12	0.73	
	8 [1 saltine] crackers	104.16	2.83	2.21	17.16	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	<i>Meal Totals</i>	951.21	42.35	39.41	111.68	
<i>dinner</i>						
	60 grams (g) spaghetti	222.60	0.95	7.67	44.81	
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07	
	1/2 cup (c) carrot	40.49	0.18	0.97	9.55	
	[1 serving] Homemade meat sauce	196.15	13.88	12.82	4.78	
	<i>Meal Totals</i>	528.98	16.20	24.21	72.21	
<i>Day Totals</i>		2,205.76	77.61	86.33	301.29	

Weekly Report

Son

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 2 breakfast</i>					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2 tablespoons (T) sweets, syrups, table blends, pancake	112.74	0.00	0.00	29.74
	[4 servings] Homemade french toast	493.10	14.47	25.25	64.23
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	<i>Meal Totals</i>	<i>802.11</i>	<i>19.61</i>	<i>33.62</i>	<i>125.08</i>
<i>lunch</i>					
	2 [1 spear] broccoli	51.58	0.64	5.49	9.65
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53
	1/4 [1 22.5x4.5cm dm] cucumber	10.90	0.11	0.58	2.31
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14
	1 1/2 tablespoons (T) thousand island dressing	93.60	8.23	0.33	4.06
	1 tablespoon (T) ketchup	15.60	0.05	0.23	4.09
	1 teaspoon (t) mustard	3.82	0.22	0.24	0.33
	1 [1 wiener] hotdog	109.13	8.77	4.57	2.21
	<i>Meal Totals</i>	<i>621.36</i>	<i>25.48</i>	<i>27.23</i>	<i>78.33</i>

Weekly Report

Son

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
Day 2					
dinner					
	3 [1 spear] broccoli	77.37	0.97	8.23	14.48
	30 grams (g) cheddar	120.77	9.94	7.47	0.38
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1/2 [100 ml chopped] onion	11.56	0.05	0.35	2.63
	3 [1 20cmx2.5cm dm] carrot	92.42	0.41	2.21	21.79
	50 grams (g) beef, hip, rump roast, lean+fat, 1/4 trim, roasted	108.43	5.52	13.72	0.00
	1 [1 fruit 6.7dm] orange	44.95	0.11	0.90	11.24
	0.06 teaspoon (t) pepper	0.35	0.00	0.02	0.09
	[1 servings] Homemade Beef gravy	24.95	1.36	1.00	2.16
	1/2 [potato 12x6dm->] baked potato	110.09	0.10	2.32	25.48
	Meal Totals	712.09	23.14	44.35	89.96
Day Totals		2,135.56	68.23	105.20	293.37

Weekly Report

Son

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 3</i>					
<i>breakfast</i>					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 tablespoon (T) honey	75.87	0.00	0.07	20.57
	4 [1 slice] brown toast	277.00	4.80	10.90	51.70
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46
	1 tablespoon (T) peanut butter	95.06	8.06	3.88	3.48
	<i>Meal Totals</i>	<i>637.68</i>	<i>17.90</i>	<i>23.75</i>	<i>104.92</i>
<i>lunch</i>					
	3/4 cup (c) macaroni & cheese	489.76	16.86	15.26	69.56
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53
	2/5 [1 22.5x4.5cm dm] cucumber	17.44	0.17	0.93	3.70
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18
	<i>Meal Totals</i>	<i>765.78</i>	<i>22.45</i>	<i>26.07</i>	<i>119.08</i>
<i>dinner</i>					
	[1 serving] Homemade Chili	0.70	0.01	0.03	0.18
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30
	2 [1 spear] broccoli	51.58	0.64	5.49	9.65
	2 teaspoons (t) margarine, tub, unspecified vegetable oils	67.36	7.56	0.08	0.05
	<i>Meal Totals</i>	<i>394.76</i>	<i>15.40</i>	<i>19.91</i>	<i>51.03</i>
<i>Day Totals</i>		<i>1,798.22</i>	<i>55.75</i>	<i>69.73</i>	<i>275.03</i>

Weekly Report

Son

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 4</i>					
<i>breakfast</i>					
	3 [1 slice] brown toast	207.75	3.60	8.17	38.78
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 tablespoon (T) peanut butter	95.06	8.06	3.88	3.48
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46
	3/4 tablespoon (T) brown sugar	38.81	0.00	0.00	10.04
	2 teaspoons (t) jelly	34.09	0.01	0.05	8.91
	1 cup (c) orange juice, chilled	109.56	0.67	1.99	25.05
	<i>Meal Totals</i>	675.02	17.38	22.99	115.43
<i>lunch</i>					
	[1 serving] Homemade Chili	109.56	0.67	1.99	25.05
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30
	2 [1 spear] broccoli	51.58	0.64	5.49	9.65
	3 teaspoons (t) margarine, tub, unspecified vegetable oils	101.04	11.34	0.11	0.07
	<i>Meal Totals</i>	537.30	19.84	21.90	75.92

Weekly Report					
Son					
Meal	Food Item	Calories	Fat	Protein	Carbohydrate
Day 4					
dinner					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [100 ml tidbits] canned pineapple	63.40	0.08	0.44	16.59
	4 [1 leaf] iceberg lettuce	9.88	0.14	0.77	1.59
	1/5 [1 20cmx2.5cm dm] carrot	6.16	0.03	0.15	1.45
	1/5 [1 22.5x4.5cm dm] cucumber	8.72	0.09	0.46	1.85
	2/3 tablespoon (T) thousand island dressing	41.81	3.68	0.15	1.81
	[2 servings] Homemade sweet and sour sauce	174.09	0.29	1.88	45.39
	1/4 tablespoon (T) peanuts, all types, boiled	3.13	0.22	0.13	0.21
	50 grams (g) chicken, broiler, back, meat+skin, water chill, raw	95.58	8.69	4.03	0.00
	3/8 cup (c) white rice	256.59	0.46	5.01	56.20
	1 teaspoon (t) sauces, prepared, soy	3.82	0.00	0.52	0.50
	Meal Totals	784.38	18.36	21.67	137.30
Day Totals		1,996.70	55.58	66.56	328.65

Weekly Report

Son

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 5</i>					
<i>breakfast</i>					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2 cups (c) cheerios	185.20	3.48	6.05	33.84
	4 tablespoons (T) raisin	124.68	0.19	1.40	32.83
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46
	2 tablespoons (T) peanuts, all types, boiled	25.06	1.73	1.06	1.68
	<i>Meal Totals</i>	<i>524.69</i>	<i>10.44</i>	<i>17.41</i>	<i>97.52</i>
<i>lunch</i>					
	3 [1 slice] brown bread	209.22	3.57	8.25	39.21
	3 ounces (oz) tuna	111.42	0.43	25.16	0.00
	2 tablespoons (T) mayonnaise	201.47	22.13	0.30	0.30
	2 [100 ml shredded] iceberg lettuce	5.85	0.09	0.45	0.94
	1 [1 fruit 6.7dm] orange	44.95	0.11	0.90	11.24
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	[1 serving] Wacky Cake	138.88	5.31	1.41	22.07
	1/4 teaspoon (t) mustard	0.96	0.06	0.06	0.08
	1/4 tablespoon (T) peanuts, all types, boiled	3.13	0.22	0.13	0.21
	1/2 teaspoon (t) lemon juice, canned or bottled	0.53	0.01	0.01	0.16
	<i>Meal Totals</i>	<i>837.61</i>	<i>36.61</i>	<i>44.80</i>	<i>85.92</i>

Weekly Report						
Son						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
<i>Day 5 dinner</i>						
	1 [1 20cmx2.5cm dm] carrot	30.81	0.14	0.74	7.26	
	2 [1 spear] broccoli	51.58	0.64	5.49	9.65	
	1 [100 ml chopped] onion	23.13	0.10	0.71	5.25	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	1 cup (c) ice cream	265.32	14.52	4.62	31.15	
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18	
	[2 servings] Homemade Beef gravy	99.79	5.43	4.00	8.65	
	1 teaspoon (t) sauces, prepared, soy	3.82	0.00	0.52	0.50	
	3/4 cup (c) grain, rice, white, long-grain, regular, cooked	199.87	0.43	4.14	43.31	
	50 grams (g) beef, hip, rump roast, lean+fat, 1/4 trim, roasted	108.43	5.52	13.72	0.00	
	<i>Meal Totals</i>	<i>904.65</i>	<i>31.47</i>	<i>42.10</i>	<i>117.66</i>	
<i>Day Totals</i>		<i>2,266.95</i>	<i>78.52</i>	<i>104.31</i>	<i>301.10</i>	

Weekly Report

Son

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 6</i>					
<i>breakfast</i>					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2 [1 slice] brown toast	138.50	2.40	5.45	25.85
	2 teaspoons (t) jelly	34.09	0.01	0.05	8.91
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46
	3/4 cup (c) orange juice, chilled	82.17	0.50	1.49	18.79
	Meal Totals	444.51	7.95	15.89	82.72
<i>lunch</i>					
	1 1/2 cups (c) pork and beans	402.27	5.88	19.70	75.82
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	Meal Totals	814.07	13.80	35.73	150.90
<i>dinner</i>					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	[2 servings] Homemade meat sauce	392.30	27.77	25.64	9.55
	2 [1 slice] brown toast	138.50	2.40	5.45	25.85
	2 ounces (oz) cheddar	228.26	18.79	14.12	0.73
	4 [1 leaf] iceberg lettuce	9.88	0.14	0.77	1.59
	2/5 [1 20cmx2.5cm dm] carrot	12.32	0.05	0.30	2.91
	2/5 [1 22.5x4.5cm dm] cucumber	17.44	0.17	0.93	3.70
	1 tablespoon (T) thousand island dressing	62.40	5.49	0.22	2.71
	1/2 tablespoon (T) peanuts, all types, boiled	6.27	0.43	0.27	0.42
	Meal Totals	988.57	59.92	55.83	59.17
<i>Day Totals</i>		2,247.15	81.67	107.45	292.79

Weekly Report						
Son						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
Day 7						
breakfast						
	2 [1 large egg] poached egg	149.00	9.98	12.44	1.22	
	2 [1 slice] brown toast	138.50	2.40	5.45	25.85	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	2 teaspoons (t) jelly	34.09	0.01	0.05	8.91	
	1 [1 fruit 6.7dm] orange	44.95	0.11	0.90	11.24	
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18	
	2 teaspoons (t) margarine, tub, unspecified vegetable oils	67.36	7.56	0.08	0.05	
	Meal Totals	555.80	24.75	27.08	59.16	
lunch						
	60 grams (g) spaghetti	222.60	0.95	7.67	44.81	
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14	
	1 cup (c) carrot	80.99	0.36	1.94	19.10	
	[2 servings] Homemade meat sauce	392.30	27.77	25.64	9.55	
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46	
	2 [100 ml diced] celery	14.44	0.13	0.68	3.30	
	2/5 [1 22.5x4.5cm dm] cucumber	17.44	0.17	0.93	3.70	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	Meal Totals	1,057.00	36.80	51.26	135.77	

Weekly Report						
Son						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
Day 7						
dinner						
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	[1 serving] Wacky Cake	138.88	5.31	1.41	22.07	
	1 cup (c) mixed vegetables	107.38	0.27	5.21	23.82	
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40	
	[1 serving] No peak chicken casserole	211.04	9.03	6.98	25.19	
	1/8 teaspoon (t) pepper	0.70	0.01	0.03	0.18	
	Meal Totals	654.27	19.76	22.00	102.37	
Day Totals		2,267.07	81.31	100.34	297.30	
Grand Total		14,917.4	498.67	639.92	2,089.53	

Weekly Report

Daughter

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
Day 1					
<i>breakfast</i>					
	[2 servings] Homemade Pancakes	205.13	6.85	6.30	29.17
	1 tablespoon (T) sweets, syrups, table blends, pancake	56.37	0.00	0.00	14.87
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2/3 cup (c) orange juice, chilled	73.41	0.45	1.33	16.78
	Meal Totals	456.11	11.98	15.76	72.53
<i>lunch</i>					
	1 tablespoon (T) peanut butter	95.06	8.06	3.88	3.48
	1 tablespoon (T) jelly	51.49	0.02	0.08	13.45
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14
	2 ounces (oz) cheddar	228.26	18.79	14.12	0.73
	4 [1 saltine] crackers	52.08	1.42	1.10	8.58
	Meal Totals	634.92	31.03	25.45	69.84
<i>dinner</i>					
	30 grams (g) spaghetti	111.30	0.47	3.83	22.41
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07
	1/2 cup (c) carrot	40.49	0.18	0.97	9.55
	[1 servings] Homemade meat sauce	98.07	6.94	6.41	2.39
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	Meal Totals	440.80	13.46	22.09	59.13
Day Totals		1,531.83	56.47	63.30	201.50

Weekly Report
Daughter

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 2 breakfast</i>					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 tablespoon (T) sweets, syrups, table blends, pancake	56.37	0.00	0.00	14.87
	[2 servings] Homemade french toast	246.55	7.24	12.62	32.11
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	Meal Totals	499.19	12.38	20.99	78.09
<i>lunch</i>					
	1 [1 spear] broccoli	25.79	0.32	2.74	4.83
	1 [1 20cmx2.5cm dm] carrot	30.81	0.14	0.74	7.26
	1/5 [1 22.5x4.5cm dm] cucumber	8.72	0.09	0.46	1.85
	1 [100 ml diced] celery	7.22	0.06	0.34	1.65
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07
	1 tablespoon (T) thousand island dressing	62.40	5.49	0.22	2.71
	1/2 tablespoon (T) ketchup	7.80	0.03	0.11	2.05
	1 teaspoon (t) mustard	3.82	0.22	0.24	0.33
	1/2 [1 wiener] hotdog	54.56	4.39	2.29	1.11
	1 [1 9.5 cm] dill pickle	11.70	0.12	0.40	2.68
	Meal Totals	403.76	16.73	18.42	49.25

Weekly Report

Daughter

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 2 dinner</i>					
	3 [1 spear] broccoli	77.37	0.97	8.23	14.48
	15 grams (g) cheddar	60.39	4.97	3.73	0.19
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1/4 [100 ml chopped] onion	5.78	0.02	0.18	1.31
	2 [1 20cmx2.5cm dm] carrot	61.61	0.27	1.48	14.53
	50 grams (g) beef, hip, rump roast, lean+fat, 1/4 trim, roasted	108.43	5.52	13.72	0.00
	[1 servings] Homemade Beef gravy	24.95	1.36	1.00	2.16
	2/3 [potato 12x6dm->] baked potato	147.52	0.14	3.11	34.15
	<i>Meal Totals</i>	<i>607.25</i>	<i>17.93</i>	<i>39.58</i>	<i>78.53</i>
<i>Day Totals</i>		<i>1,510.20</i>	<i>47.04</i>	<i>78.99</i>	<i>205.87</i>

Weekly Report						
Daughter						
Meal	Food Item	Calories	Fat	Protein	Carbohydrate	
<i>Day 3 breakfast</i>						
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	1 [1 slice] brown toast	69.25	1.20	2.72	12.93	
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46	
	3/4 tablespoon (T) brown sugar	38.81	0.00	0.00	10.04	
	Meal Totals	297.81	6.24	11.62	52.14	
<i>lunch</i>						
	1/2 cup (c) macaroni & cheese	326.51	11.24	10.17	46.37	
	1 [1 20cmx2.5cm dm] carrot	30.81	0.14	0.74	7.26	
	1/5 [1 22.5x4.5cm dm] cucumber	8.72	0.09	0.46	1.85	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40	
	Meal Totals	562.31	16.61	19.74	86.59	
<i>dinner</i>						
	[1 servings] Homemade Chili	37.53	0.23	0.12	9.70	
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71	
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07	
	1 [100 ml diced] celery	7.22	0.06	0.34	1.65	
	1 [1 spear] broccoli	25.79	0.32	2.74	4.83	
	1 teaspoon (t) margarine, tub, unspecified vegetable oils	33.68	3.78	0.04	0.02	
	Meal Totals	295.16	10.26	14.12	40.98	
Day Totals		1,155.28	33.11	45.48	179.71	

Weekly Report

Daughter

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
<i>Day 4</i>					
<i>breakfast</i>					
	1 [1 slice] brown toast	69.25	1.20	2.72	12.93
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 teaspoon (t) jelly	17.05	0.01	0.03	4.45
	1 cup (c) orange juice, chilled	109.56	0.67	1.99	25.05
	<i>Meal Totals</i>	<i>317.06</i>	<i>6.56</i>	<i>12.87</i>	<i>54.14</i>
<i>lunch</i>					
	[1 servings] Homemade Chili	54.78	0.34	1.00	12.52
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07
	1 [100 ml diced] celery	7.22	0.06	0.34	1.65
	1 [1 spear] broccoli	25.79	0.32	2.74	4.83
	1 teaspoon (t) margarine, tub, unspecified vegetable oils	33.68	3.78	0.04	0.02
	<i>Meal Totals</i>	<i>312.41</i>	<i>10.37</i>	<i>15.00</i>	<i>43.80</i>
<i>dinner</i>					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [100 ml tidbits] canned pineapple	63.40	0.08	0.44	16.59
	4 [1 leaf] iceberg lettuce	9.88	0.14	0.77	1.59
	1/5 [1 20cmx2.5cm dm] carrot	6.16	0.03	0.15	1.45
	1/5 [1 22.5x4.5cm dm] cucumber	8.72	0.09	0.46	1.85
	2/3 tablespoon (T) thousand island dressing	41.81	3.68	0.15	1.81
	[1 servings] Homemade sweet and sour sauce	43.52	0.07	0.47	11.35
	35 grams (g) chicken, broiler, back, meat+skin, water chill, raw	66.91	6.08	2.82	0.00
	1/5 cup (c) white rice	135.05	0.24	2.64	29.58
	<i>Meal Totals</i>	<i>496.65</i>	<i>15.09</i>	<i>16.03</i>	<i>75.93</i>
<i>Day Totals</i>		<i>1,126.12</i>	<i>32.02</i>	<i>43.90</i>	<i>173.87</i>

Weekly Report

Daughter

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
Day 5					
breakfast					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	2/3 cup (c) cheerios	62.04	1.16	2.03	11.34
	2 tablespoons (T) raisin	62.34	0.09	0.70	16.41
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46
	Meal Totals	314.13	6.29	11.63	56.92
lunch					
	2 [1 slice] brown bread	139.48	2.38	5.50	26.14
	1 1/2 ounces (oz) tuna	55.71	0.21	12.58	0.00
	1/2 tablespoon (T) mayonnaise	50.37	5.53	0.08	0.08
	1 [1 leaf] iceberg lettuce	2.47	0.04	0.19	0.40
	1 [1 fruit 6.7dm] orange	44.95	0.11	0.90	11.24
	1/2 cup (c) 2% milk	60.60	2.34	4.06	5.86
	1/2 teaspoon (t) mustard	1.91	0.11	0.12	0.16
	Meal Totals	355.49	10.72	23.43	43.88
dinner					
	1/2 [1 20cmx2.5cm dm] carrot	15.40	0.07	0.37	3.63
	1 [1 spear] broccoli	25.79	0.32	2.74	4.83
	1/2 [100 ml chopped] onion	11.56	0.05	0.35	2.63
	1/2 cup (c) 2% milk	60.60	2.34	4.06	5.86
	1/2 cup (c) ice cream	132.66	7.26	2.31	15.58
	2/5 cup (c) grain, rice, white, long-grain, regular, cooked	106.60	0.23	2.21	23.10
	40 grams (g) beef, hip, rump roast, lean+fat, 1/4 trim, roasted	86.74	4.42	10.98	0.00
	1/2 teaspoon (t) sauces, prepared, soy	1.91	0.00	0.26	0.25
	Meal Totals	441.26	14.69	23.28	55.88
Day Totals		1,110.88	31.70	58.34	156.68

Weekly Report

Daughter

Meal	Food Item	Calories	Fat	Protein	Carbohydrate
Day 6					
breakfast					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [1 slice] brown toast	69.25	1.20	2.72	12.93
	1/2 tablespoon (T) peanut butter	47.53	4.03	1.94	1.74
	1/2 cup (c) orange juice, chilled	54.78	0.34	1.00	12.52
	Meal Totals	292.76	10.25	13.79	38.90
lunch					
	2/3 cup (c) pork and beans	178.79	2.61	8.75	33.70
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07
	1 [1 20cmx2.5cm dm] carrot	30.81	0.14	0.74	7.26
	1 [100 ml diced] celery	7.22	0.06	0.34	1.65
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	1 teaspoon (t) margarine, tub, unspecified vegetable oils	33.68	3.78	0.04	0.02
	Meal Totals	516.51	12.92	20.99	86.81
dinner					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	[1 servings] Homemade meat sauce	98.07	6.94	6.41	2.39
	1 [1 slice] brown toast	69.25	1.20	2.72	12.93
	1/2 ounce (oz) cheddar	57.07	4.70	3.53	0.18
	4 [1 leaf] iceberg lettuce	9.88	0.14	0.77	1.59
	1/5 [1 20cmx2.5cm dm] carrot	6.16	0.03	0.15	1.45
	1/5 [1 22.5x4.5cm dm] cucumber	8.72	0.09	0.46	1.85
	2/3 tablespoon (T) thousand island dressing	41.81	3.68	0.15	1.81
	Meal Totals	412.16	21.46	22.32	33.91
Day Totals		1,221.43	44.63	57.10	159.62

Weekly Report					
Daughter					
Meal	Food Item	Calories	Fat	Protein	Carbohydrate
Day 7					
breakfast					
	1 [1 large egg] poached egg	74.50	4.99	6.22	0.61
	1 [1 slice] brown toast	69.25	1.20	2.72	12.93
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	1/2 tablespoon (T) jelly	25.74	0.01	0.04	6.73
	1 [1 fruit 6.7dm] orange	44.95	0.11	0.90	11.24
	1 teaspoon (t) margarine, tub, unspecified vegetable oils	33.68	3.78	0.04	0.02
	Meal Totals	369.32	14.77	18.05	43.24
lunch					
	30 grams (g) spaghetti	111.30	0.47	3.83	22.41
	1 [1 slice] brown bread	69.74	1.19	2.75	13.07
	1/2 cup (c) carrot	40.49	0.18	0.97	9.55
	[1 servings] Homemade meat sauce	98.07	6.94	6.41	2.39
	1 [fruit 22x3.6dm] banana	68.55	0.36	0.77	17.46
	1 [100 ml diced] celery	7.22	0.06	0.34	1.65
	1/5 [1 22.5x4.5cm dm] cucumber	8.72	0.09	0.46	1.85
	Meal Totals	404.09	9.29	15.53	68.38
dinner					
	1 cup (c) 2% milk	121.20	4.68	8.13	11.71
	[1 servings] Wacky Cake	69.44	2.65	0.71	11.03
	2/3 cup (c) mixed vegetables	71.94	0.18	3.49	15.96
	1 [1 fruit 7cm dm] apple	75.07	0.46	0.24	19.40
	[1 servings] No peak chicken casserole	105.52	4.51	3.49	12.59
	Meal Totals	443.17	12.48	16.06	70.69
Day Totals		1,216.58	36.54	49.64	182.31
Grand Total		8,872.32	281.51	396.75	1,259.56

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